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NOTES ON EUROPEAN AGRICULTURE,

BY A CHARLESTONIAN.

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THE GRASSES.

PROVIDENCE has kindly scattered his blessings in due proportion over the earth. He has endowed man with intelligence and industry, to enable him to appropriate to his own use, the various productions in the wide field of nature from which he may derive subsistence and comfort. There is no country so sterile, which man by seizing on the productions around him, may not render subservient to his use, and from which he may not derive a support. The Arab in the desert, and the Esquimaux amidst the ices of the Pole, find a table prepared for them in the wilderness, by the bountiful hand of Heaven, and by seizing on their advantages, they are fed and clothed and are contented with their lot. The man in civilized society has many artificial wants, but is endowed with greater resources. Science and commerce enable him to bring to light the hidden resources of nature—to profit by the experience of others, and to bring into cultivation the productions of other lands. A beneficent Providence has created various cereal grains, fruits, and grasses, and planted them, perhaps, in some small island—on some obscure spot on this His earthly garden, but has endowed man with intelligence and enterprise to know their value—transplant them into other soils—improve these gifts of nature by cultivation, and render them invaluable auxiliaries to his comfort and happiness.

The most valuable plants and grains which now engage the industry and minister to the support of three-fourths of the world, are of comparatively recent introduction. Whilst the olive, the millet, and the silk, may be traced back to the ages of antiquity, the articles which now feed and clothe the inhabitants of the civilized world, have been more recently discovered by men of science, and brought into cultivation by the skilful agriculturist. A single generation has only passed away since a handful of rice, and a few seeds of cotton, were sown in a garden in Charleston as a *curiosity*, and no doubt, regarded by many, as an idle experiment. They are now such important staples, that they engage the commerce, and regulate, in a considerable degree, the monetary system of the world. The Irish potatoe, which has been of the greatest consequence to mankind, was not known in Europe till the days of

Raleigh, and found its way into England by a ship, wrecked on the coast of Lancashire. During the many severe famines to which Great Britain has been subject, there is no exaggeration in asserting that the lives of millions of human beings have been preserved by this vegetable alone. It is but a little more than a century since the first coffee tree was brought to France, from which all the trees in the West-India islands have originated. The original sweet orange tree, from which all the varieties of that fine fruit in Europe and America have been derived, although a native of China, was shown but a few years ago at Lisbon. The writer of this article, has plucked fruit from the original tree, which produces the sickle pear now cultivated both in Europe and America, as the finest variety of this fruit in the world. The tree, he believes, is still growing in one of the meadows in the vicinity of Philadelphia. Nor is it in the power of any government, by its strictest enactments, to prevent the dissemination of fruits, plants, and seeds. If the ingenuity of man cannot accomplish it—the birds, the winds and the waves, will effect it. The cocoa-palm is now growing on the sands of Florida, the nut having been floated from Cuba by the waves of the sea. The sea grape, the shore plum, and more than a hundred other species of West-India plants, not omitting the mahogany, have been carried thither either by the winds or the birds. The white headed pigeon is known to visit Cuba every day, whilst it is breeding along the Florida coast, and thus becomes a courier and a planter between the island and maine. The severity of the laws of that exclusive and extraordinary people the Chinese, could not prevent the productions of their soil from finding their way to other lands—nor could the rigour of the Dutch and the burning of their superfluous spice trees prevent the dispersion of their cherished aromatic plants. The tea shrub of China is now cultivated in Java by men smuggled from Japan, and also flourishes in the vicinity of Charleston—and the spice trees have found their way to the islands of the West-Indies and of the Pacific ocean.

The grasses cultivated in Europe, although the majority of them are not indigenous, have now become so thoroughly naturalized that they may be regarded as natives. In laying down lands for hay or pasture a greater mixture of seed is used than in the Northern States of our own country. The grasses most commonly cultivated are red clover, white clover, timothy or herd's grass, rye grass, crested dog's tail grass, vernal grass, trefoil, &c. To this may be added as fodder for cattle various species of vetch—as well as turnips, carrots, the sugar beet, &c. The invaluable herd's grass—our timothy (*Phleum pratense*.) was extensively cultivated in this country before its value was known in Europe, and has only of late come into repute in the latter country. I believe in America it received its name from having been brought from New-York to Carolina by Mr. Timothy Hanson. Less merit than this has often conferred immortality on a name.

A successful and extensive farmer in Scotland gave me the following list of grass seeds, and the quantities of each sown on an acre:

Red Clover—the variety called Duke of Norfolk's cow-grass, (<i>Trifolium pratense</i> ,)	4 lbs.
White clover (<i>Trifolium repens</i> ,)	7 "
Rye grass (<i>Lolium perenne</i> ,)	25 "
Trefoil (<i>Medicago lupulina</i> ,)	4 "
Sheep's fescue grass (<i>Festuca ovina</i> ,)	1 "

In England the following table, contained in an article by Lawson on grasses, (Quarterly Journal of Agriculture, vol. iv.) exhibits the quantity of grass seeds sown to the acre. It will be recollect that the land thus laid down in grass is not intended as a permanent pasture, but to be used for hay and pasture for a year or two and then again cultivated with grain.—

LIGHT AND MEDIUM SOILS.

	ONE YEAR HAY.	ONE YEAR HAY AND ONE YEAR PASTURE.	ONE YEAR HAY AND TWO YEARS PASTURE.
<i>Lolium perenne</i> , - - - -	18 lbs.	18 lbs.	18 lbs.
<i>Trifolium pratense</i> , - - -	8 "	6 "	3 "
" <i>perenne</i> , - - -	00 "	00 "	3 "
" <i>repens</i> , - - -	2 "	4 "	4 "
<i>Medicago lupulina</i> , - - -	00 "	2 "	2 "

For heavy soils 1 lb. of *Phleum pratense* and 2 lbs. of *Trifolium pratense* are added.

The following table is added from the same author. It may be useful to our northern and up-country farmers, who may be desirous of laying down their lands for meadows or permanent pasturage. I believe this is the mode now generally approved in England.—

	LIGHT SOILS.		MEDIUM SOILS.		HEAVY SOILS.	
	With a crop.	Without a crop.	With a crop.	Without a crop.	With a crop.	Without a crop.
<i>Alopecurus pratensis</i> , - - -	1 lb.	1½ lb.	1½ lb.	2 lb.	2 lb.	2 lb.
<i>Avena sativa</i> , - - - -	4 "	½ "	00 "	00 "	00 "	00 "
<i>Dactylis glomerata</i> , - - -	4 "	5 "	4 "	5 "	4 "	5 "
<i>Festuca duriuscula</i> , - - -	2 "	2 "	2 "	2 "	1 "	1 "
" <i>heterophylla</i> , - - -	00 "	00 "	1 "	1 "	1 "	1 "
" <i>loliacea</i> , - - - -	00 "	00 "	00 "	00 "	1 "	2 "
" <i>pratensis</i> , - - - -	1 "	2 "	2 "	3 "	2 "	3 "
" <i>rubra</i> , - - - -	2 "	2 "	00 "	00 "	00 "	00 "
<i>Lolium perenne</i> , - - - -	10 "	12 "	10 "	12 "	10 "	12 "
<i>Phleum pratense</i> , - - - -	00 "	00 "	1 "	1½ "	2 "	3 "
<i>Poa pratensis</i> , - - - -	1 "	1 "	00 "	00 "	00 "	00 "
" <i>trivialis</i> , - - - -	00 "	00 "	2 "	2 "	2 "	3 "
<i>Medicago lupulina</i> , - - -	1 "	1 "	1 "	1 "	1 "	1 "
<i>Trifolium pratense pe- renne</i> , - - - -	3 "	4 "	3 "	4 "	3 "	4 "
" <i>repens</i> , - - - -	4 "	5 "	4 "	5 "	4 "	5 "
	29½ "	36 "	31½ "	33½ "	33 "	42 "

And common barley or rye, about one bushel additional to such as are sown without a crop.

In all cases the ground must be ploughed upon sowing the seed. It is scattered broad cast either in March or September, or October, (the autumn month being preferable,) and the ground is harrowed and rolled after sowing. In the Northern States of America, clover is frequently sown in the wheat field in early spring, and this is occasionally done with the above mixture in Europe.

In England farmers differ considerably in their estimate of the various species of grass. In the pasturage on the South Downs, where the formations are of a chalky nature the plant called the Burnet (*Poterium sanguisorba*,) seems to cover the whole earth, and is greedily eaten by

fine sheep that range on those pastures. This plant, which I have never seen in America, was formerly cultivated extensively in England for pasturage, but it has, of late years, given way to other more valued kinds. In the mountains of Switzerland, along the high-ways between Constance, Zurich and Berne, and indeed in the whole of the Swiss Alps I noticed the sheep and goats, and even cows, feeding almost exclusively on the rib grass, a species of plantain (*Plantago lanceolata*,) which I have occasionally seen in America, in the vicinity of cultivated fields, where it was evidently introduced. I was informed by the inhabitants that the fine flavour of their butter and cheese was imparted to them by this plant. The sweet scented vernal grass (*Anthoxanthum alpinum*,) growing in the same vicinity, may also contribute its aid in this particular. On the hills of Scotland in the vicinity of Loch-Lomond, which with the exception of their being not wooded, bear some resemblance to the mountains of Virginia, the common native grasses, such as the flat stalked meadow grass (*Poa compressa*,) crested dog's tail grass (*Cynosurus cristatus*,) *Agrostis canina*, and several other hardy species give nourishment to the extensive flocks covering the mountains. The Duke of Buccleugh is the lordly possessor of many of those extensive sheep walks. Thousands of black faced sheep, the usual varieties of these towering hills, are annually driven to the markets in Edinburgh, Glasgow, &c. To my taste, they produce the finest mutton in Europe. I have often thought that not only these breeds of sheep, but the pastures on which they are fed, might be easily and successfully introduced into the mountainous districts of our country.

In Germany, the common spurry (*Spergula arvensis*,) is cultivated as a winter pasture for sheep and cattle. It is sown on the stubble after the corn crops are removed. It is said that the mutton, as also the milk and butter of cows, fed on it, are of a very superior quality. There is a distinct variety of this plant, called the branching spurry (*Spergula arvensis ramosus*,) which is now coming into general use. It comes earlier and is one-third more productive. I did not observe it in Great Britain, and the English farmers did not think it equal to many other grasses already in cultivation. It has been accidentally introduced into our country with our imported garden seeds, and is naturalized among some of the gardens on Charleston neck. I do not consider it of much value in our climate. It does not equal our wild peas (*Vicia sativa* and *V. michellii*.)

In many portions of France I observed a very extensive cultivation of a grass resembling oats, called by the French, *L'Avoine élevée*; it is the *Arrhenatherum avenaceum* of Botanists. It is sometimes called *Ray grass de France*. It has not, as far as I can recollect, been introduced into England, but I have heard Frenchmen praise it highly, even preferring it before our famed timothy grass. I have no doubt it would succeed in many parts of America. One of the earliest and best pasture grasses of Great Britain is the meadow fox-tail grass (*Alopecurus pratensis*.) It is, however, better adapted to pasturage than hay, and requires two or three years after sowing to arrive at full maturity. But it is a perennial, seldom dies out in spots like many other grasses, and constitutes the greater portion of many of the richer pastures in Britain.

Until of late years the varieties of the common rye grass (*Lolium perenne*,) were regarded in England as producing more grass and hay than any other species. They are still cultivated almost universally

on lands which are expected to be converted into wheat fields after one or two years. Some of these varieties are annuals, others perennial. None of them remain, however, more than three or four years, when it is necessary to re-cultivate the ground.

At the present time the Italian rye grass (*Lolium Italicum*,) is regarded on the continent of Europe as the most productive of all the species. It is perennial; the leaves are broader, and it is said not to be affected by the vicissitudes of either heat or cold. I observed this superior grass growing in the neighbourhood of Hamburg—in Prussia, Saxony, Austria and France—and heard but one opinion, which was of the most favourable character. In the French periodical (*Le cultivateur, Journal des progrès Agricoles*,) it is spoken of by Mr. Boutteville a very successful agriculturist, as one of the most valuable grasses in the world. He sows it with red clover among his oats—ten pounds of rye grass to the acre.

He concludes by saying, "I can assure you, that its hay is excellent for feeding horses and cattle; and that its nutritious qualities are greater in proportion to its weight than that of the other hays and clovers."

In England, where it has but recently come into notice, the accounts I heard of it were very favourable. The following statement from a respectable farmer, whose name I omitted to notice, I extracted from an agricultural paper:

"I cut on the 1st July, 1837, from ten Irish perches of inferior land my Italian rye grass; the stalks were from four to four feet and a half long. Product at first cutting nine bushels of seed, which I sold at 10s. 6d. (sterling) per bushel. Second crop on the same year from six to seven bushels, and stalk from three to three feet and a half high. The hay was of the best quality.—I expect another crop next spring."

Seeds of this grass may be easily obtained from Hamburg or Havre.

There is residing in the Department of the Loire an eminent agriculturist by the name of Bailley who has originated a striking and permanent variety of rye grass called Bailley's rye grass. I saw it growing on the mountains of Bohemia and in France. It was stated to me that although shorter in growth, it was thicker and finer in foliage, more permanent in duration, and yielded fully as heavy a crop as the Italian rye grass. From this variety were produced six thousand pounds to the acre.

I shall conclude this article on the grasses with a few observations in reference to our culture of those species which I conceive well adapted to increase the products of the dairy and to improve our soils in regard to the rotation of crops, in the maritime districts of South-Carolina and Georgia.

1. *The Dairy.*—It is well known that Charleston, Savannah, Augusta, Columbia, and all our large towns in the South, are but scantily supplied either with good milk or fresh butter. A number of families in Charleston make a comfortable support by keeping four or five cows each, purchasing the grass which is brought from the country, and selling milk. When the cows become dry, they are sold to the butchers and others are purchased.

I would propose that the following experiment be made by some enterprising, industrious man, who is not ashamed of his profession, and will take a pride in attending personally to his business.—

Let a farm of one hundred and fifty acres be procured in the vicinity,

of from three to six miles of the city. Let this farm be divided into suitable lots for the cultivation of grasses and vegetables to serve as food for the cattle. Let one field be planted in hard's grass (*Dactylus glomerata*,) which answers our climate very well, as I have had it flourishing in my garden for the last fifteen years, and have frequently cut it as early as February. I would prefer planting the roots, which are easily divided, setting them out a foot or eighteen inches apart. The seeds vegetate pretty well, but the plants when young are often destroyed by more luxuriant grasses. Let a small field be planted with the roots of the Gama grass. It is very productive; cattle, although they do not prefer it at first, soon grow fond of it, and they do not seem at any time to refuse it when made into hay. Let alternate fields of oats, barley and rye, be sown in drills, and at the same time sowing broad cast over some of these fields about twenty pounds of Italian or common rye grass to the acre. Another field should be devoted to the cultivation of the common Guinea grass, which although it comes rather late in spring, is very productive, and lasts till killed by the frosts of autumn. A small bed left for seed, covered during winter with straw, will produce an abundance of plants, which should be set out in rows eighteen inches apart and the plant standing eight or ten inches in the row. Another field set out in the same manner with Egyptian millet (*Pennisetum tephroideum*,) one of the most productive grasses in the world, growing easily from the seed, and is thoroughly naturalized to our climate. Other fields I would have successively planted in vegetables not for the market but for the cows. These roots should be composed of turnips, Ruta baga, Kohl rabbi, sugar beet, carrots, &c. Thus an abundance of green food and vegetables would be successively furnished for every month in the year.

On this farm I would build extensive and airy, but not expensive stables, to secure the cattle against the cold of winter—and what is far more injurious, the heat of summer. The buildings should be so arranged that in summer the air may have a free circulation. Let forty or fifty cows among the best of the common breeds of Carolina be purchased; these may average about forty dollars per head. Keep among them a young bull of the superior English breeds. A stock may thus be provided in a few years adapted to our climate. Importations of grown cattle for our lower country are not advisable, as not one out of five survives two years, whereas those raised here do not seem to degenerate, and are as well adapted to our climate as the common variety.

Let the cows be housed all the year, and only be allowed to go out occasionally for exercise. Let their food be carried to them as in most parts of England, Belgium and Holland. They will be cooler in the stables than when exposed to the hot sun; our cows kept in confinement in Charleston thrive better than those that are turned out.

The manure and litter from the stables will after the first year go far to keep the land enriched.

Let careful attendants be provided for the cattle, and light carts used to convey the milk or fresh butter to market morning and evening. It is not my intention to estimate the profits of such an establishment, yet I cannot but think that it would be infinitely greater than that produced by any farmer in the vicinity of our city who has not invested a larger capital.

Should the above be regarded as a visionary scheme I would only ask not to be condemned before the experiment has been tried and failed.

2. *Grasses to be cultivated by the planter in the rotation of crops.*—My own experience will not allow me to pronounce positively on the best kind of grasses for hay or pasturage adapted to our southern climate as renovators of the soil.

The old method of cultivating the same field with cotton for a succession of years, and another with corn, until the lands are worn out, has been long tried, and the result has been destructive to the best interests of the planter. His lands are nearly worn out, and he has the prospect of leaving to his posterity a ruinous farm house, decayed fences, meagre cattle, and a barren soil. It is a murderous system against which the earth cries aloud for forbearance, and which the voice of experience unhesitatingly condemns. Even Balaam's ass stopped to remonstrate when he was overworked. It is treating our kind and teeming mother with ingratitude and cruelty—demanding, like the Egyptian task masters, bricks without straw—labour without rest. We have been experimenting on the fable of the golden egg, and are now realizing the fruit of greedy desires. Oh! for another Mantuan bard to awaken us from indolence and error—who would instruct us with that gifted father of agriculture,—

“ *Alternis idem tonsas cessare novales,
Et segnem-patiere situ durescere campum,*”

Whilst we are furnished with such large plantations, it seems hard that our poor cattle should be suffered to pick up a scanty subsistence and waste their manure in the woods. We have a sufficient number of productions already in cultivation to enable us to alternate our crops: cotton, corn, sweet and Irish potatoes, rye, wheat, barley, oats, ground-nuts, guinea corn, &c.—I need not speak of rice—the heavens have it in charge, and a thousand rills carry to it the drainings of the richest vallies. Even in this particular a benefit has, in some instances, been found in either suffering the rice land to rest for a year, or alternating the crop. A highly intelligent and successful planter of Waccamaw informed me, that he had two years ago not planted a portion of his land in rice, but suffered the volunteer, or red rice, to spring up. It was ploughed under; a portion of the land was cultivated in oats—the remainder was kept as a pasture for cattle. In this way his land was in a measure freed from red rice—he was bountifully supplied with milk and butter, and the product of his rice-field was on the succeeding year one-fourth more productive than formerly.

We have in Carolina several species of native grasses, that have already been brought into cultivation, especially the crab and crow foot. These, however, are annuals, and the ground requires to be every year cultivated and manured. The fox-tail grass, elymas or lime grass, and many species of poa, festuca, and panicum, are the native products of our fields. From some of these, and many others that I have not enumerated, a selection might be made as an experiment, which, in the end, could scarcely fail of success.

But I would prefer making use of those grasses that have been already found to be successful in agriculture. The clover and timothy I have reason to fear, are not adapted to our dry, sandy soil. On the various species of grasses cultivated in Europe, which I have already enumerated, especially those of the south of France and Austria, as well as Italy,

no experiment has been made. I doubt whether the Italian rye grass has ever been seen in the southern States, and scarcely in America, although I have a faint recollection of seeing a few plants, some years ago, on the farm of Judge Buel near Albany in New-York. A crop of oats, or rye, after the corn or cotton, would afford a sufficient shade for the grasses to vegetate, and after the spring grain was removed, would not only afford hay or pasturage for cattle, but renovate the soil and prepare it for the production of our staple articles. By this means our land and our stock of cattle would be improved—we would be less dependant on strangers for our hay, meats, and butter, and in the end our cotton and corn crops would be more abundant. It is but fair that we receive from our New-England brethren their cotton cloths in exchange for our raw material, and their flour for our rice, but it is rather a reflection on our industry and enterprise when we look to them also for our hay and butter.

ERRATA.—In the 4th No. page 1, third line from the bottom, for "exotics" read *natives*; in page 194, line 23d from top, for "light" read *fight*.

For the Southern Cabinet.

ON THE AMBIGUITY OF TERMS—LIME AND ITS SALTS— THEIR APPLICABILITY TO AGRICULTURAL PURPOSES, BY C.

Mr. Editor,—It is to be regretted that many of those who, so praiseworthy give the result of their experience on the improvement of soils, to the public, often use terms ambiguously, so much so as frequently to make their papers entirely useless, as very often the importance of the subject may hinge upon the definition of one word. This I have often remarked to be the case, in the use of the word lime, or limestone, lime rock, &c. Doubtless this is often mere inadvertance, but again it would seem as if they were used without a knowledge of the characteristic differences, of many of those terms. It also appears to me, that there is much useless discussion upon certain subjects, from no less a cause than a want of knowledge of the value of some of those terms which are generally used, but it would appear not so generally understood. An article that would have been interesting and highly useful, had I been able to discover whether it was lime, or carbonate of lime that had been applied by the experimenter, is frequently rendered entirely useless, by this ambiguity of terms. I hope, then, that the few explanations and remarks, which I am about to make, will be pardoned by those who know, whilst I shall be amply remunerated, if I can prevail upon others to use more precision, in the use of terms which are susceptible of distinct scientific definitions.

Lime is a substance entirely different in its chemical properties from the carbonate of lime, (or limestone.) There exists as much difference between those two substances as there is between the caustic alkali soda, and the muriate of soda, or table salt. The inert substance, carbonate of lime, (limestone, marble, &c.) when subjected to sufficient heat, is deprived of its carbonic acid, and becomes caustic, capable of causing decomposition in organic matter, and possessing the well-known properties of lime. Lime, when exposed to the air, absorbs carbonic acid from the atmosphere, and again becomes carbonate of lime. Lime, when

placed in contact with organic matter decomposes the latter, and the carbonic acid of the vegetable, or animal matter, combines with the lime, and the salt, carbonate of lime is the result, which, by being re-calcined, re-produces lime, (caustic lime, quick lime.)

Of all the salts, the carbonates are the weakest; they are decomposed by all the acids. This decomposition usually takes place with an effervescence, which fact gives us an easy mode of ascertaining whether the heat has been sufficiently great or protracted, to deprive the lime of its combination with carbonic acid. By taking a small portion of the substance, in which you desire to ascertain the presence, or absence, of carbonic acid, and placing it in a wine-glass, on which throw a little water, so that the mineral be covered, then add a few drops of any acid, which may be convenient, (strong vinegar will do,) and if the substance be a carbonate, or contain carbonic acid, it will rise in bubbles, in proportion to the quantity of carbonic acid contained, or decomposing acid added. This simple experiment is also one of the most convenient modes of ascertaining the proximate quantity of lime in any mineral substance, in which we may suspect the presence of carbonate of lime. If the substance possess the physical properties of limestone, (carbonate of lime,) and effervesces on the application of an acid, it is a pretty sure indication of the presence of lime. By adding an acid, (strong vinegar, nitric, or muriatic acid, being preferable, the last more so than either of the others,) until it ceases to effervesce, we can form a pretty correct idea of its purity. If it dissolves entirely, it is a pure carbonate, and in proportion to the residuum left, is it impure.

The two substances are then entirely different in their properties. The one is inert, the other caustic. Lime cannot be long exposed in contact with organic matter, or to the atmospheric air, without absorbing carbonic acid; that acid being a constituent of both. The carbonate of lime, (limestone, marble, &c.) always contains precisely the same quantity of carbonic acid for equal portions of lime, and when saturated, remains unalterable, until some extraordinary means deprives the lime of the acid. Those specimens which contain a less proportion of carbonic acid than the carbonate of lime, contain a mixture of the carbonate of lime, and lime—which is a much more important fact than would at first appear, though somewhat irrelevant to the present object of these remarks.

Having given some of the properties of those two substances, and I hope made clear the difference that invariably exists in their chemical properties, I shall now make some remarks upon the action of lime, and its carbonate, upon soils, and their agency in promoting vegetation.

It is conceded that all good soils contain lime, which must be combined with some acid, as it cannot otherwise exist in contact with the atmosphere; and though soils are formed from the detritus of rocks, it by no means follows, because a soil may rest upon limestone, that carbonate of lime forms one of its constituents. It is often quite the reverse, as may be remarked in some of the limestone formations of the United States. In Lancaster county, (Penn.) and elsewhere, the soil is known to be acid. Among the indications which announce this fact, is the more or less abundant growth of sorrels, &c., which contain oxalic acid, and in some of the calcarious basins of France, that acid is extracted in sufficient quantities to make it an article of trade. Had lime, or the carbon-

ate of lime, been present, it would have combined with this acid, to the advantage of the properties of the soil. Where a soil is found to be deficient in lime, the carbonate of lime may be added, (if a change in the proportions of the constituents of the soil be the only desideratum,) with as much effect as if it were deprived of its carbonic acid—indeed, in certain cases, caustic lime would be deleterious when its carbonate would be beneficial; but, in the majority of cases, it is more advantageous to add calcined carbonate of lime, if it were for no other reason than its more easy and equal distribution. In many cases, calcination is the cheapest and most expeditious mode of pulverization; but there are cases where the carbonate of lime, or substance containing the carbonate of lime, is friable and easily reduced to powder, when it would be useless to incur the expense of calcination, for if it is applied for the purpose of changing the proportions of the constituents of a soil, the carbonate is equally useful with caustic lime, as the latter, as has been stated, will soon absorb carbonic acid; or again, if the object be to neutralise the preponderance of acid tendency, the carbonate of lime is equally efficacious with the caustic lime.

A soil, by use, may cease to be fertile, which is invariably the case when it is worked without the addition of organic matter, of which fact the State of South-Carolina is a striking example, but this is by no means conclusive evidence that all the organic matter has been destroyed. The active portions alone may have been consumed, and still there may remain a quantity of inert organic matter, of the nature of ulmin, upon which the atmospheric agents have no action. To render such substances active as food for plants, the *cautious* use of caustic lime is necessary. The caustic lime by being added, and immediately intimately incorporated with the soil, causes a fermentation, altering the nature of that which was inert, and making soluble compounds of those substances which might have lain dormant for unlimited time, but which thus become ready and proper food for vegetation. I have made use of the word *cautious*, because too much lime, instead of simply altering the nature of the substances, must necessarily cause a fermentation so great as to dissipate them entirely, and thus rendering the soil so entirely barren, as to make necessary the addition of organic matter. In this case, the addition of carbonate of lime would be inefficacious, so far as its action on the inert organic matter is concerned.

If these views be correct, it follows as a matter of course, that the addition of lime to manure is entirely useless. Indeed I am of opinion that much time, labor and expense would be saved, if instead of fermenting in the stable yard, and adding to that fermentation by frequent stirrings, and not unfrequently by the addition of lime, the component parts were hauled out, when convenient, and incorporated with the soil. The fermentation would thus be more slow, and the loss less. Many may not be aware of the extent of loss by fermentation in the stable yard, which, instead of adding to its value, is, I am convinced, so much dead loss, for few of those substances which litter our barn yards, and which by being thrown together with heat and moisture, diminish in a geometrical progression as the fermentation is active, if hauled out and immediately ploughed in, would not ferment, and thus that portion would be saved, which would have been dissipated in gas in the barn-yard. Perhaps the immediate benefit would be more apparent from the addition of

that already fermented, but it appears clear that the ultimate advantage of the two modes would be on the side of the former.

But to return to our theme. The Gypsum, Plaster of Paris, or Sulphate of lime, is a substance in universal repute, for its beneficial effects on vegetation, and particularly on certain varieties of grasses. It is known that the ashes of clover invariably contain that salt. Unfortunately that substance is less generally diffused over our country than limestone, but I will here undertake to suggest a mode of preparation of the sulfate of lime, which in some localities may be accomplished at a trifling cost. Beds, or deposits, of the pyritous sulfuret of iron are not uncommon. In such localities, where limestone, or any substance containing carbonate of lime is sufficiently near, the sulfate of lime may be produced, equally efficient for agricultural purposes, with that of natural formation. The sulfuret of iron being collected and broken into small fragments, and mixed with pulverised limestone, or lime, and allowed to remain exposed to the air or rain, (if the season be dry, the addition of a little water will aid,) in a short time heat will be produced, and the absorption of oxegen, (dissolved in the atmospheric humidity,) will cause the formation of sulfuric acid, which will unite with the lime, and thus the sulfate of lime be the result. An occasional stirring might aid in bringing the particles into contact, and thus causing a more perfect decomposition. The chemical proportions, necessary for great exactness, may be procured from any work on mineralogy or chemistry, but in the large way, nicety may be dispensed with. I have but little doubt but that this decomposition is daily taking place, and rendering soils fertile that otherwise would be barren, from the formation of that deleterious acid, (sulfuric,) when free, or combined with weak bases, such as the peroxide of iron.

One word on the very reprehensible mode of agriculture pursued in this, naturally much favoured region, made manifest by the many tracts of lands turned out to commons. The proprietors have here literally killed the goose for the golden egg, and the same state of things is still existing. I presume that it will hardly be doubted if I say that no country can sustain itself without grass. Not only has this been carefully avoided, but all rotations of crops, which is one reason why the face of the country is disfigured, and but little attachments shown to homesteads. Money is the first and great consideration, and emigration, with all its list of chances, the consequence. The old fields, (for such they are termed,) may be divided into two classes. Those that are undulating with precipitous slopes, or hilly, and those that undulate in long sweeps and are flat. The cultivation pursued with regard to both has been the same. The ground has been kept constantly clean and mellow, by instruments miscalled ploughs, to the depth of two or three inches, regardless of its fitness to be ruined by rains, the effects of which are rendered more marked by the furrows which are most usually brought up and down hill, instead of gently leading the water by a small inclination, (as is practised in some cases by the most intelligent planters, who feel, though granted the right of use, they have not that of abuse,) and thus dividing its force, and causing it to be gradually re-absorbed. The varieties first mentioned have thus been entirely ruined, while the second variety, from the fact that they could not be washed from their slight declivities have been merely exhausted on the surface, and doubt-

lessly could, in many instances, be reclaimed by deep ploughing, or where possible, by the application of lime and organic matter.

But I find I am running to a much greater length than I anticipated when I commenced writing, and therefore ask indulgence for so long intruding, the subject possessing more interest to me than perhaps I can give it to others. If you conceive, Mr. Editor, that the above remarks have sufficient interest to merit a place in your excellent journal, they are at your disposal.

C.

Abbeville, So. Ca.

ON THE RENOVATION OF THE SOIL,

DETERIORATED BY IMPROVIDENT CULTIVATION.

IT is a fact, not to be disputed, that by improvident cultivation, the best soils in our country have been deteriorated so far that they will not produce one half the amount of harvest which might once have been calculated on with great assurance.

This is the case more particularly at the South, on the Atlantic coast, than in the New-England States, where necessity sooner compelled the owners of lands to supply by means of various manures, the exhaustion occasioned by excessive cropping.

In Maryland, Virginia, and the Carolinas, much of their soil which was first cultivated, lying within fifty miles of the coast, was of so level a surface that the plough, after a few years contention with stumps and snags, found no obstacle in its progress through a generous mould; and without much agricultural skill to direct as to the time and manner of its movements, was soon taught the rude lesson of annually turning the world upside down, and loosening its surface for the reception of seeds that were to produce an exhausting crop.

This annual revolution of the surface soil—allowing it no rest—no time to recruit its wasted strength—no means to replenish its drained bosom with proper and natural nutriment, proved almost as pernicious to the soil as frequent political subversions and revolutions do to the body politic—wasting its strength in experiments, and allowing no time for the good seeds that had been sown to take deep root, and fill the country with perennial harvests.

The grasses must take their turn in the rotation of crops, and they must not be annually disturbed. In a few years, if properly sown, they fill the soil with vegetable matter, of which it has been exhausted, by cropping with grain. And in this way we suffer the land “to rest” from severe labor until it has again become qualified to yield up its stores in the shape of grain—of cotton—of tobacco. Of flax—of hemp, or of sugar-cane.

It is no disparagement to scripture that Moses gave different directions,—on which we have improved,—for the recruiting, or “rest,” of worn out soils. Gradual improvements are the order of Providence; and Moses was not “raised up” in Asia to teach the western world how to manage their lands.

We are not certain that the ancient mode of suffering the land "to rest" every seventh year;—bearing no burthen whatever,—was ever adopted by our fathers. But a practice analagous to this has formerly prevailed to a great extent both in England and in the Northern States. It is called in England the "naked fallow," or "summer fallow." In New-England it is known better by the name of "summer tillage."

In both countries the same practice prevailed. It consisted in repeated ploughings of a field through the season, and suffering no vegetation of any kind to make its appearance. The fundamental doctrine was that the land needed rest—that is, rest from the labor of production; and the rules of Moses, if they were thought of in the operation, were so far departed from that, although the soil was not allowed "to act," yet it might "be acted upon" by the plough, through the whole season, without any risk of fatigue.

Repeated ploughings, through the summer, are beneficial to any soil, but more particularly to heavy or clayey surfaces. They serve to ameliorate and comminute the hard sods and lumps, and enable them more readily to imbibe from the atmosphere its enriching qualities. But after all, these repeated stirrings serve rather to prepare a good soil for a crop, than to make a poor soil good. They fit the pulverised earth to yield up all the riches it possesses, rather than store it abundantly with food for future plants.

MODERN IMPROVEMENTS IN FALLOWS.

One of the greatest improvements of modern culture consists in substituting the green fallow crop—the tilled crop—for the naked fallow; and requiring the soil, as well as the farmers children, *always to be doing something*. Children are naturally inclined to be busy, and they should always be engaged, through the day, in labor, in mental exercises, or in proper sports; but idleness should never be tolerated.

Lands are quite as naturally inclined to be doing something; and they need, through the summer, no rest. Thorns or thistles—weeds or briars, will generally be found in neglected fields, and this general inclination to be active should instigate us to turn it to good account.

GREEN CROPS PLOUGHED IN.

One of the best modes which we have tried for recruiting worn out lands, is, to plough in green, growing crops. We have various modes and seasons for practising this, of which we shall give a detailed account, promising that we would not be understood as neglecting or undervaluing the usual manures and means of fertilization in practice throughout the country.

In Virginia and in Maryland, many of their horses are turned to pasture in summer. And from the appearance of some we should judge they had much the same keeping through winter. But farmers will yet learn—many have learned—that horses at grass are *asses*, that they are only *half* horses: and will not perform half the labor of horses fed in the stable.

But we would say one word in this place as to the value of their manure. When properly kept in stable, having no floor, and well littered with straw, or any absorbing matter, one horse will make fifteen loads of most excellent manure—thirty bushels to the load—in one year. Or, counted by the cord, he will annually make four cords; and this is enough for a dressing for an acre.

Kept in this manner, all the stale is saved; and no manure which we have ever tried, is equal to it. Hog-manure, and composts formed from the back-house—called by the French, poudrette—will give to vegetation a sudden start, but none will continue to act powerfully so long as well managed manure from the horse-stable.

As many fine horses in Maryland, Virginia, and the Carolinas, are kept in the stable through the year, we would call the attention of our Southern patrons to this subject. As they feed principally with straw and grain, and raise these articles in abundance on their plantation—they have no lack of material for enriching their fields to a great extent; this article, together with the contents of the hog-pen and the cow-yard, which should not be allowed to remain long uncovered and *unmixed*, will serve to enrich a part of the plantation.

But how shall five hundred acres, in one body, of exhausted land, be enriched and made to produce a crop worth the harvesting?—land that has been run with Indian corn until three barrels to the acre are as much as the planter expects, and more than the blacks wish to gather and carry to the ricks. Can the manure of half a dozen horses, and half as many cows produce any sensation on such an extent of impoverished plain?

It is a sore evil to possess so many acres of land—some of them, on Geometrical principles, must lie at a distance from the house, and the barns—and if sheds and laborers huts are located through the lots, all must be often inspected; and in any mode of management, we suffer from precisely the same cause as that which afflicts some of our merchants and many of our Banks—too great expansion.

Manures cannot be conveniently carried to all parts of a large plantation. They should therefore be applied to the fields near where they are made; and the more distant fields must be enriched with green crops. Tares are much used for this purpose in Europe, but whether these would grow as rank and as rapidly in our dry climate, we are not certain. We think they have not been extensively tried.

Oats have been sometimes sown to be ploughed in, but they give only a small layer when the land is poor. Rye will grow on poor soils, but we must use much seed, or we must let it grow tall, else we have but little to bury with the plough. *Round turnips* form a good green crop for the plough, but they will give no top in poor ground. INDIAN CORN has been recommended and partially tried. This is not more exhausting than oats or rye, and on fields not worn down low, probably no green crop would furnish more matter to be covered by the plough, than this one. But on quite exhausted land, this would not answer our purpose; and the quantity of seed necessary for such a purpose, would be four or five bushels, quite an objection with economists.

Buckwheat is a grain that will grow on most poor soils. It delights most in dry locations, a soil inclined to gravel or sand. It has many qualities that recommend it highly as an article to be grown for the purpose of filling the soil with vegetable matter, of which it has been much exhausted, in the States of which we have spoken.

In the first place, it will grow and produce a handsome layer for the plough, on lands that will produce nothing else. In the second place, we do not find it an exhausting crop. We can raise it many years in succession on our poor lands without any manure, and we very commonly save fifteen or twenty bushels of the grain from an acre. This plant has a very small, fibrous root, and is easily pulled up by hand. It has

also a large branching top that never could get its support from this root. It has therefore, probably, greater facilities for procuring nourishment from the atmosphere, than most plants have.

All theory and all experience unite in showing that this plant takes less from the soil, than any other of the same size. In the next place, it has a rapid growth, six weeks in Massachusetts, being long enough to bring it in full blossom, when it should be ploughed in. Three crops may therefore be turned under in one season in Virginia, and then it will be early enough—(Sept. 1st)—to sow down with grass seed.

Another advantage attends the raising of this for grain or for green crops; the expense of seed is not great. It usually bears the same price as our best corn, and is worth quite as much for fattening animals, and one bushel of seed is enough for an acre. When it is raised for the purpose of saving the grain, we often sow but half a bushel. The straw is also greedily eaten by young cattle and by horses—colts may be wintered on it. Yet we have known large piles of this straw to be burned in the field where it was threshed!

Now with this article—this old, neglected, abandoned, and abused buckwheat—we could soon renovate the once beautiful plains, formed from the washings of the gulph of Mexico, and lying between the Alleghany ridge and the Atlantic ocean. Much of this fine tract has been cropped, time out of mind, while nothing was grown that could make any adequate return for what was abstracted.

The natural advantages of this tract of country are far superior, in our humble opinion, to the far-famed West. And though the soil has been mismanaged and abused, a few years of correct husbandry would again restore it to its pristine value and importance. No critical niceties need to be observed, no nicer labors than the blacks are capable of performing, are required to bring these feasible soils again to fertility. And when they are brought to that state, there is no difficulty in keeping them there.

None of the various grasses are great exhausters of the soil, and grass must form one of the series of the rotation of crops. When lands are kept half the time in grass, the roots fill the soil with vegetable matter that turns to manure directly on being turned by the plough, and, by means of raising more grass, more stock, may be kept, and that increases the quantity of animal manures.

The policy of raising so many acres of corn on reduced land, must be abandoned. When more buckwheat can be raised on the acre than is obtained of Indian corn, it should be substituted for corn in a great measure, for it requires not a sixth part of the expense to produce it—and when buckwheat is raised for its grain, if proper care be taken to sow something with it that may be turned in for a green crop in June, the land will prove more productive, year after year.

On the wet and clayey lands of that district of country buckwheat may not be sown. Such lands may be treated as we treat our grass lands of that character at the North. They may be turned over in autumn and seeded down again directly to grass.

As to enriching their lands with any kind of lime, the South will some day see the futility of the attempt. Stone lime may operate partially as a stimulant, or as a corrector of the bowels of some earths: and it is probably equal to sand for disintegrating hard clays. Their lime from shells will prove more enriching. And shells of all kinds

will serve to break apart hard soils. But some shells possess animal matter. And when this is the case there is no doubt of their enriching qualities. On this account we should prefer the newest shells.

Green crops form the cheapest manures, and there is no question but they are suitable for the soils on which they grow. When they are grown a heavy roller must be passed over them before the plough is used, and in the same direction as the intended furrows.

Fall seeding to grass is more safe than spring seeding, and when a field has been enriched by the turning in of two green crops in the summer it may be laid to grass in Virginia at any time in September. And if it is the chief object of the proprietor to improve the quality of his soil he will do well to sow nothing but grass seeds. If clover is apt to be winter killed, when sown late, it should be sown on the snow in winter. When the land is intended for pasturing the smallest kinds of southern clover, and the Dutch honey-suckle should compose a part of the seed.

When the quality of the soil has been so improved that a good growth of clover can be produced, wheat may be grown in turn; but wheat must not often intrude on these worn lands unless stable manure be applied—neither can any kind of grain, excepting buckwheat, be frequently introduced as a rotation crop, on these old fields, without the application of manure.

The owners of these large plantations would do much better to till less ground and let a greater number of acres lie in grass. They cannot make it profitable to raise ten bushels of corn to the acre when its price is no higher than fifty cents. But if they will fill their soil with cheaply grown vegetable matter—lay the greatest portion to grass, and keep more stock, they may have fifty bushels of corn to the acre instead of ten, and twenty or thirty bushels of wheat in lieu of eight.

The blacks would be better employed, half the summer, in hauling up muck from the swamps and mixing it with the animal manures than to be running over hundreds of acres annually for harvests that would not pay a white man the gathering. A field thus laid to pasture will be constantly yielding something of value, instead of subjecting its owner to expense, as many tilled fields now do. And by shifting these fields from grass to grain and then from grain to grass, the whole will grow richer from year to year.

We have heard some farmers express a doubt of the correctness of the modern theory of growing green crops on the soil we wish to enrich. They argue in favor of the ancient naked fallow, and say, "we gain nothing by first raising green crops and then ploughing them in, because the raising of the crop takes precisely as much from the soil as we return to it when we bury that crop under the sod."

Now if it were true that plants obtain all their nourishment from the soil this reasoning would be correct. But this is never the case. Plants can never come to maturity without a free circulation of air; and some seem to live almost wholly upon it.

Various experiments show that plants may be grown in boxes of earth in the open air, and when they have arrived at maturity, the earth in which they grew has not been diminished to the amount of one hundredth part of the weight of the plants.

On reversing this operation we find that one hundred pounds of wood consumed in an open fire place, will not leave one pound of earthy

matter on the hearth. Now what has become of the ninety and nine pounds? They have ascended the chimney to become the food of other plants. They have been mixed with the atmosphere, and in it they pervade every bud—every leaf, and every flower.

As all plants obtain a portion of their food through the leaf, we can enrich a soil by growing any one kind thereon and then burying it under the sod. But as there is a great difference in plants as to their power of obtaining nutriment through the leaf, and consequently of drawing from the soil; by selecting those which not only appear to be qualified, by their organization, but which on actual trial are found to exhaust the soil but little, we proceed with confidence in our theory, confirmed by actual practice, and raise up plants out of the earth to be returned again to enrich it an hundred fold.

[*Boston Cultivator.*]

AGRICULTURAL SURVEY OF ST. MATTHEWS.

[CONCLUDED.]

Manures.—There has as yet been no systematic attempts at manuring, though every planter endeavours to accumulate as much as possible. But no hands are specially designated for this work; the usual practice is, on such rainy days as the hands cannot be employed in the fields, and there is no other work urgently requiring them, *all* are sent into the woods to rake up leaves, top-soil, &c. accompanied by all the carts and wagons of the plantation—and a very large quantity is gathered and carted into the farm-yard at once. Soon, however, as the weather will permit, or other work requires their presence, they are taken from this, and leaves are not gathered again until the next rainy spell. This plan is not peculiar to St. Matthews. In many places where we have visited we have found it the one generally followed: perhaps it is more so than that of designating hands for this work specially. But it is objectionable on various grounds. In the first place, the amount of manure collected on the plantation, will vary every year, depending not on the ability of the planter to have it collected, but on the state of the weather during that period. How is it possible then for him to be systematic in his other operations? He cannot determine what fields shall be manured the next season, for he knows not how much manure he shall collect—in fact, every operation is uncertain, depending on contingencies, and very often not determined on, until the very moment for action arrives.

Again—when such large quantities of trash are brought into the farm yard at one time, the manure from the cattle, horses, &c. cannot be equally mixed throughout—consequently, when carted out, it will be found of unequal strength, and while some of it will be exceedingly strong, the rest will be very little better, if any, than that which might be at once obtained from the woods: hence, the crop will be unequally manured, and of course bear unequally. It is true this is obviated in a great measure on many plantations, by throwing the whole mass into

large heaps, and permitting it thus to remain and partially decompose, before removing to the fields; but to intermix the whole so as to make it of uniform strength, requires more than once throwing it into a heap: it should be turned over and intermixed at least two or three times before carting out. We prefer much the plan of appropriating a certain number of hands solely to this work, who are to be thus engaged throughout the year, and not on any account to be otherwise employed, for the supply will then be regular, can be equally distributed throughout the yard, stables and pens, will be more intimately mixed; and lastly, the amount gathered in this way, will (we have not the least hesitation in saying) be greater than by the former mode. Such has been the *actual experience* of all who have tried both, with whom we have had the pleasure of conversing. Nor need the force, thus to be employed, be large. It is the constant, every day accumulation, that swells the aggregate so largely at the end of the year. By reference to our excursion into St. John's Berkely, it will be seen with what a small force Dr. Ravenel accumulates a vast quantity of manure. With a mule, cart, driver, and two half hands, constantly employed, he manages to collect materials enough to give him fifteen thousand single horse-cart loads of excellent manure every year.* After the crop has been laid by, if not required for other work, two ox-carts are sent to assist, for some four or five weeks, but the main dependance is on the *one cart and its attendants* thus constantly employed. Other planters in the same Parish are equally as actively employed; but we do not refer to them, because we are not certain as to the amount of the force they employ, or the results.

Cotton seed is also much used in this Parish. It is usually thrown out and exposed to the weather from the time it is ginned until carted out for manure. Some few keep it under shelter and destroy its vitality just before using it. By some it is mixed with their compost manure, while others employ it alone. It is altogether used for corn, and the field is supposed to be benefited for more than one year.

When carted out, both the cotton seed and compost manure are laid in small heaps about every seventy or eighty feet, which secures an equal distribution over the fields. The compost generally, is well rotted, and a handful is placed on each side of the furrough, and the corn planted between. When cotton seed is used, the corn is first planted, and from a pint to a quart of the cotton seed, is thrown on the top of the hill. This is covered by the earth thrown up by the first ploughing, and as its vegetative powers have been previously destroyed, it gives no trouble by its germinating. We were not informed of any other manures being used in this Parish, but as most excellent marl has been found in several places, and as the few experiments which have been made were highly satisfactory, we hope in a few years to have the pleasure of recording great renovation and improvement.

CULTURE OF THE CROPS.

Cotton.—The fields intended for the culture of cotton, are either rested two years and planted two, or a part planted in corn highly manured, which is considered as equivalent to one years rest. The first year the old beds (or ridges) are levelled, but the ground is not further broken.

* In the account an error occurs, which we embrace this opportunity of correcting. Instead of fifteen thousand "ox-cart" it should be "horse-cart" loads.

up—the weeds are then permitted to spring up and grow until August or September, when they are turned under and the ground made fine. Sometimes this cannot, from a press of other work, be done until winter. This produces a much finer growth the second year, which is also turned under as early in the fall as possible, either with the plough or hoe, as the one or the other may be best spared for work. All endeavour to get this done as early as practicable, so that the weeds may decompose by the time the young cotton plants require sustenance. Where it has been delayed, and the weeds listed instead of being turned under, great injury has been done to the crops, and some have been lost, in consequence of the great quantities of undecomposed vegetable matter, forming the beds. If turned under, at the proper season three furroughs are run together, and the cotton planted thereon. All do not, however, turn under the growth of weeds, &c. but prefer running a furrough with a bull-tongue plough at the proper distances, and listing into it all the vegetable growth. If this should be delayed until January or February, a furrough is run on either side with the shovel-plough, and the list covered, so as to hasten decomposition. If the list is very large, hands are sent into the fields, who walk backwards over the lists and chop and mix the weeds and earth as much together as practicable. The beds are made principally by the shovel plough, and dressed over by the hoe. They are small, low and flat, so as to elevate the plant as little above the general surface as possible, and from three to three feet and a half apart. In planting cotton, a hand is generally sent ahead, who levels the bed and removes the dry soil; he is followed by another with a dibble, with which he makes a hole every twelve or eighteen inches, according to the strength of the soil; a third drops the seed, and a fourth covers by pushing a hoe or piece of board over the surface.* Very few manure this crop: all that they can collect being generally applied to the corn. Mr. Haskel, however, does so. He places in each hole a handfull of well rotted compost, covers it with earth and plants thereon.—From the 10th to 20th April, they commence planting the crop, which of course is got in with all expedition. As soon as *all* of the crops have been planted, some of the planters commence hoeing their cotton, whether it be up or not, in order to destroy the young grass which would prove injurious if left long. As soon as practicable the cotton on light sandy soils is thinned down to a single stalk, which is done at the first working, unless the spring is wet and cold when the first part is not, though it is all, thus treated, before leaving the field. On clayey lands this is not deemed expedient. It is thought best (and the experience of many of the best planters approves) to thin at once to single stalk, as the frequent breaking up of the soil around, and in contact with the plant intended to remain, proves injurious. On clayey grounds the cotton plant is liable to the "sore shins" which renders it impolitic to thin down to a single stalk at first. It is, however, done at the subsequent working. The bull-tongue, shovel, and scraper ploughs, in conjunction with the hoes, are used in working this crop. In light soils, the scraper alone is required, which runs on the sides of the beds, and throws the earth into the centre of the alleys; it is then run in the centre, and returns the earth to the

* The plan followed in Darlington district, which we shall give in our next, is much more expeditious.

sides, whence it is drawn again to the beds by the hoe. The bull-tongue and shovel-ploughs are used in the heavy, clayey lands, the scraper not answering as well in such, as in lighter. The hoes follow immediately after the ploughs, and do an acre per diem, except when the crop is to be thinned, when but three-quarters of an acre is done, the same hand thinning that quantity. Every ten days or fortnight the crop is worked over and is laid by, from the middle to the last of July, varying according to the season and the soil. Picking commences usually on the light lands from the middle to the end of August. The clayey lands are generally a fortnight later. The average product varies from one hundred to one hundred and fifty pounds of clean cotton per acre; on choice lands from three hundred to three hundred and twenty pounds: one hundred pounds are picked by prime hands.

If planted a second year, a furrough is run in the centre of the old alleys, (in the clayey lands, but not in the sandy,) the stalks are pulled up and laid in them, the grass and weeds listed thereon, and the beds formed, by the plough throwing a furrough on each side, which is completed by the hoe. The other operations are the same as stated above.

The only variety planted in this Parish at present, is the Petit-Gulf, which requires to be changed frequently, as it deteriorates greatly in our climate.

Corn.—Both corn and cotton are planted usually in the same fields, without alternating with each other. In preparing for this crop, a furrough is run by many, in the centre of the alleys, into which the old stalks are placed, listed on, and covered, being first cut into short pieces. Others throw two furroughs together, and plant thereon, leaving the general breaking up of the ground to be done at the first working, when four or five furroughs usually accomplishes it. The Tuscarora corn is planted commonly throughout the Parish, at a distance of three by five feet, leaving but one stalk. In manuring with compost, it is applied by putting a handful on each side of the corn and covering it. The quantity used per acre, is about sixty bushels. When cotton seed is used, it is placed over the corn after it is planted, at the rate of from one to two pints per hill, the germinating power being first destroyed. The cotton seed is covered over by the ploughs at the first working. The scraper and shovel-plough are principally used in working this crop, which is gone over from three to four times. The average product is thought to be ten bushels per acre, and on the best lands manured, twenty bushels per acre.

Potatoes.—There is nothing peculiar or worthy of remark in the culture of this crop. The varieties are the yam, Spanish, and red. The reds are cultivated on account of their earliness; the yams are, however, deservedly the favorites, both on account of their fine flavour and good keeping qualities.—The root crop is relied on for feeding. Slips (vines) planted principally for seed, though when the seasons are favourable, they grow sufficiently large to yield a quantity, fit for eating. The beds are made large and five feet apart—the sets are generally cut. They are hoed twice, shaved down with the scraper, and hauled up with the hoe. We could not ascertain what the probable product was.

Peas.—Usually planted among the corn in drills made from stalk to stalk; by some they are planted in double rows—product not ascertained. They are also sometimes sown by themselves.

Oats, Rye, and Wheat.—The first is sown broad cast and not manured. No account is taken of the product. *Rye* is grown only for early pasturage. *Wheat* is cultivated by a few for home consumption; but as there is no proper mill in the Parish, the flour is dark, and though wholesome, yet is not as pleasant to look on, as that prepared elsewhere.

AGRICULTURAL MEETING.

ON CORN.

[CONTINUED FROM PAGE 216.]

The meeting was then addressed by Mr. Dodge, of Hamilton, the secretary of the meeting, on the mode of harvesting corn.

He spoke of the New-Jersey mode of harvesting corn, which was by cutting it up at bottom and "stooking" it in the field. He knew, likewise, that a Scotch farmer, the manager of an excellent farm in his vicinity, had been in the habit of planting his corn in drills, and when it was glazed, cutting it up at the bottom and allowing it to become cured in that way. His experience had satisfied him that this mode was to be approved. As soon as the corn was cut the circulations were of course stopped, and all danger from frost was over. He thought the labor of harvesting was much increased by this mode; but he was not prepared to say which mode was most eligible. There were very great advantages in encouraging inquiry.

Mr. Dodge then went on to speak of the advantages of agricultural reading,* and the benefits which the community received from agricultural periodicals. He referred particularly to the case of a farmer in Southboro', who states that five years ago he kept one horse, one yoke of oxen, and six cows; cut twenty-five tons of hay and made sixty loads of manure. His improvements were such that he now on the same farm keeps two yoke of oxen, twenty-five cows, cuts from seventy to ninety tons of hay, and makes four hundred loads of manure. This came from husbanding his resources; and all this from reading the New-England Farmer. He at that time took one agricultural paper,—he now takes two, and would on no account be without them.

The question was then presented to the meeting. What is the best mode of managing with corn that has been injured by early frosts?

Mr. Putnam replied, that the best mode of managing in such case, was to cut it up and stock it at once.

Mr. Clark replied, that the proper mode to be adopted with it, depended upon the severity of the frost and the condition of the corn. If the corn is frozen, let it stand upon the hill. This was the most probable means of securing it. If the leaves merely are touched, the corn will become sound, notwithstanding this. If the cob is frozen, the corn may be

* Our respected friend here, as the farmers say, showed a disposition to be "breachy," and got through the fence into another field. As, when he let down the bars, he let the whole drove in with him, and as the feed was very good "in this other lot," we believe no one was disposed to complain.

considered like a cooked vegetable, and it is beyond cure. In 1836, with him, the leaves only were killed. This was the same as cutting off the top stalks. The circulations of the sap were checked. What was then afloat in the stalks was condensed; and the progress or filling out of the corn is at once finished.

He had made some important experiments in the matter of topping the stalks of corn. In one row through the field he topped every other hill, and left the remainder as they were until harvest. The loss from topping the stalks he estimated at 20 per cent. The crop from the uncut hills was equal to sixty bushels per acre; from those the stalks of which were cut, it did not exceed forty-eight bushels per acre.*

Mr. Clark's opinion was then asked by a gentleman present, as to what relation the number of stalks in a hill should bear to the richness of the soil. He in one case planted an acre of land; manured it heavily; and laid his hills three feet each way. The growth of stalk was excessive, and we understood him to say that the more plants left in the hill, beyond a certain number, under such high manuring, would cause the yield of corn to be proportionably diminished.

Mr. Clark replied, that the more thickly the corn stands, where the land was very much enriched, the less would the crop suffer from drought. He had planted in hills two feet, three feet, and three feet and a half apart, and the hills accurately measured. He had left in one row three, in another four, in another five plants,—he had kept the ground level. Those which had four stalks gave more corn than those which had three, and the five plants gave more than the four. The extremes of produce in the case were thirty-eight bushels and sixty bushels. The more thickly corn was planted on rich land the better. On light land, however, he had found that corn might be too thickly planted.

Mr. Cook, of Lenox, then gave his views in regard to corn which had been attacked by frost. In his opinion, an ounce of prevention was better than a pound of cure. He deemed it best, therefore, considering the uncertainties of our climate, to cultivate corn which came early to maturity. Besides this, it was safest and best, as soon as practicable, to place it beyond the reach of frost. This was to be done by cutting it up at the bottom and stooking it in the field as soon as it was fit for that operation. He considered the death of the leaf as the death of the whole plant; and no farther benefit to the crop was to be expected from its standing. If the corn was soft and then frozen, as in the autumn of 1837, all attempts to save it would be vain. In the western parts of this State and in New-York State, the practice of cutting up and stooking the corn in the field as soon as it is glazed, prevails universally, and was strongly recommended by the late lamented Judge Buel.

Other gentlemen participated in the discussion. The meeting was very fully attended; and the general interest is increased instead of abated.

H. C.

* This exceedingly valuable experiment was given to the public through the *N. E. Farmer*, soon after it was made, and excited particular attention. It has had a great influence upon the practice of farmers.

For the Southern Cabinet.

ON THE MANAGEMENT OF NEGROES.

MR. EDITOR—Whilst there is a continual interchange of opinions among planters, on the cultivation of their lands, and every new system by which the production may be increased, is anxiously sought after, very little is said about the management of negroes, with a view of regulating their conduct and improving their character and condition.

This certainly comprehends the first duty of the owner of slaves, but one which is often neglected, in the effort to gain too much from their labour. It is not only requisite in a good manager, that he should turn to the most profit the labour of his negroes, but that he should do it without subtracting too much from their wants, and I would pronounce that the best system, which combined the greatest gain to the master with the least sacrifice of comfort to the slave. There are, no doubt, very excellent systems practised by many planters, and a free interchange of opinions upon the subject, between different parts of the country, would benefit their condition and serve the cause of humanity.

It is characteristic of the negro, that he lives only for to-day, and is willing to let the morrow provide for itself, and unless compelled to work for himself, he will seldom look so far ahead as to provide for the wants of the next year. A few of the more industrious will cultivate a small piece of land, but the rest are satisfied after finishing their work in the fields, to lounge about their houses or go rambling off, to the neighbouring plantations. If by a proper discipline this can be corrected, and industrious habits promoted, the master is abundantly repaid by the improved condition of his negroes in every respect, and the air of comfort and satisfaction which pervades all his domains. It requires some of his attention and a little trouble to effect this, but certainly they have the strongest claim upon his care and attention. Most planters are in the habit of giving their negroes two days during the crop season: one in the spring to prepare and plant, and another in the summer to hoe the grass,—the same day is generally given to all. The industrious make a proper use of it; but unless compelled to work, many will employ their time badly, or work for the others for some trifling consideration. In the fall when the crop is gathered, if the master does not purchase it or assist them to dispose of it for its value, they are obliged to go about in search of a purchaser, with the risk of being cheated out of their hard earned pittance.—And this we all know leads to one of the greatest evils attending the management of negroes—the trafficking with persons who will furnish them with liquor. By giving his attention to them, the master has it in his power to obviate most of these evils, to correct their habits, and make them altogether more comfortable and satisfied. This subject has occupied the attention of most of the planters in this and the adjoining Parishes, and the result has been highly satisfactory to those who have tried it. I would respectfully recommend the following plan, which is practised, more or less, by most of our planters. Let there be a piece of land allotted off for the negroes, and give each one as much as he is in the habit of working in the field, say half an acre to a full-hand, quarter of an acre to a half-hand, &c. They can always find sufficient time to prepare this piece for planting, by working after finishing their tasks in the fields, which they generally do in the

month of April and a part of May, by three or four o'clock in the afternoon. Corn would be the best crop to plant in this way, and one which they all prefer, because it is most saleable. It should be planted at the same time, so that it might be worked to advantage on the same day. It should also be under the superintendance of the master himself, or his overseer, and whenever it requires a hoeing, instead of giving them a holy-day to do as they please, place each one on his own piece of ground, and require him to work it in the same manner as if he was in his master's field. The same can be done later in the season when the second working is necessary. In order to avoid imposition, it would be best to harvest their crop for them, and take it at the usual market price, or assist them in disposing of it to some person who will give them its value. I think it more proper, however, that the master should buy it from them, and indeed every thing else they may have to sell, so as to prevent their rambling about in search of a purchaser, with the risk of being imposed upon. He should also supply himself with all the articles they will require, such as sugar, molasses, tobacco, homespun, soap, &c. which can be done to advantage by getting large supplies, and let them have these things as they want, at the original cost. The plan of furnishing negroes with what they require, is very generally adopted in this Parish, and the result has been decidedly beneficial, in improving their condition and stimulating them to industrious habits. I believe if this system was universally practised, that there would be no necessity for legislative enactments against trafficking with negroes (out of the city,) as it removes all inducement to their leaving home in order to supply their wants. Very respectfully, &c.

St. John's Berkley.

R.

FARM HORSES.

As regards the keep of farm horses, public opinion is now decidedly in favor of cutting their fodder, whether it be hay, straw, or a mixture of both. Yet, notwithstanding the plan has so much to recommend it, I am perfectly convinced from observation that not one farmer in one hundred puts it in practice systematically. The best criterion of the excellence of this plan, is the fact, that in seasons when the hay crop is short, farmers resort to it as a measure of economy, in order to make their stock of fodder hold out.

In the treatment of farm horses much difference of opinion prevails. Some not only house them, but keep them constantly clothed up in the stable. Of this method I by no means approve, for though it improves the coats of the animals, it renders them tender and exceedingly liable to cold. I give the preference to the Norfolk (Eng.) system, of letting them *run out*, as it is called, which means nothing more than leaving the stable door open into a yard always kept well littered with dry straw or stubble; and as a proof that this plan is more in accordance with the natural habits and tastes of the animals themselves, than warm, close stables, it is a well known fact, that however cold the weather may be,

they generally prefer the open yard to going under cover, though they have the option of so doing. Care is necessary in this plan not to put too many horses together in one yard, and that there are no kickers amongst them. This is precisely the plan put in practice by your late valuable correspondent, G. H. Walker, of Homesburg, near Philadelphia; and during my occasional visits to that lamented gentleman, I had frequent opportunities of making myself acquainted with the general excellence of all his farming operations.

WILLIAM BOWKER.

Middletown, N. J., Jan. 1st, 1840.

[*Farmer's Register.*]

DISEASES PECULIAR TO CATTLE—REMEDIES.

MOBILE, (Ala.) Nov. 4th, 1839.

Dear Sir,—In answer to your call for information, touching the diseases of cattle, following the communication of W. I. Dupuy; permit me to refer him and any other that may desire such information, to a treatise on cattle, written by W. Youatt, of London. The title of the book is as follows: "Library of Useful Knowledge. Cattle, their breeds, management and diseases: with an index. Published under the superintendence of the Society for the Diffusion of Useful Knowledge. Philadelphia: Grigg & Elliot, 9 North Fourth Street, 1836." The title page is also embellished with a wood cut of the head of *Firby*, Lord Althorp's Bull. I have been informed that a treatise on the horse, by the same author, has been republished in this country by the same publishers, as the one on cattle above referred to, but of this, I cannot speak positively. I have not a doubt that it is the best on that subject in the English language. It contains a fund of knowledge highly valuable to agriculturists, and to all such as take any interest in cattle. Mr. Dupuy remarks upon the diversity of opinion that prevails as to the nature and causes of the disease of which he is speaking. I am satisfied that the disease is *bilious fever* in its ordinary form; and when it assumes the character of an epidemic, attacking whole herds, it then answers to the more malignant forms of that disease, as the congestive fever and the yellow fever. The nature of the disease being understood, the causes that produce it may be the more readily perceived, and the remedies more appropriately employed. The causes are various, as are those that produce that disease in the human being, and act with greater force on cattle than man. Cattle are more limited in the kinds of food they take, they are more complicative in their digestive organs, less adapted to change of climate, and indeed change of any kind, they are of delicate constitution, and are consequently acted on with more force by causes that would disturb health, than man would be. Exposure to dry hot weather or hot wet weather, bad water, bad food, rich stimulating food, especially when the animal is fat, and plethoric, a change of habit, consequent on a change of location and management: each of these and a hundred other causes might in their turn be rightly assigned as the

proximate cause of the disease, so that it is not to be wondered at, that there are diverse opinions as to the cause. I have had several *post mortem* examinations of cattle that died with it, and found the liver enlarged, and the system generally suffused with bile, particularly about the region of the kidneys, they having a tendency to inflammation.—I found the "manifold" in a greater or less degree of constipation, and the smaller intestines generally empty. These latter symptoms, the state of the kidneys, &c., are effects from the fever. I have learned too, from some intelligent butchers, that the enlargement of the liver and the general bilious symptoms are observable in very many of the western cattle that they kill, though there be no external indications of ill-health; and as the warm weather approaches, they kill them off as fast as possible, knowing the risk they run by attempting to keep them.

The remedy is blood-letting, purging, and dieting. Bleeding must be employed only in the early stages of the disease, and then largely—from one to two gallons, and more may be safely taken, according as the strength of the animal and the state of the pulse may indicate. The purging must be employed at all stages, till the constipation is overcome, and a free passage is established. Be not deceived here, one symptom of the disease is a lax state of the bowels, and a frequent effort to void the *feces* while the "manifolds" is yet in a state of constipation. This accounts for the empty state of the smaller intestines that I alluded to above. One pound to one and a half of Epsom salts, dissolved in a little over its own weight of warm water, is a dose for a grown animal, and may be repeated in half pound doses every four hours till it operates. I have given a quart bottle of castor, linseed, or sweet oil, as I had them convenient, at a dose, and continued with salts till they operated. But prevention is better than cure; then take care to know what were the habits and management and food previously, and depart as little from them as possible; keep it out of the hot sun, and if it goes out to graze only, let it go in the cool of the day for a short time; let it have plenty of pure water, give it salt frequently, and give it a moderate supply of food; aim not at keeping it fat, but only in living order. It were even better to be thin so it keep healthy, until it get acclimated. See that it ruminates, that it sweats at the nose, that the *feces* become not hard, dark and glazed, nor thin and in diminished quantities. Check the beginnings of evil by a timely dose of medicine.

My experience is, that all cattle, whether they come from the north or west, or from Europe, are equally subject to the disease; and those only survive that are treated with the strictest attention to their food, their drink, and the avoidance of exposure to the sun in grazing at large. Cows are more subject to sickness than bulls, the safest and cheapest way of improving a stock is by breeding on the native cows with imported bulls. But I designed to refer to a written treatise, instead of writing one. Respectfully,

GEO. E. HOLT.

[*Farmer's Register.*]

POULTRY.

DEAR SIR.—At your request I furnish for your paper a few remarks on the subject of chickens.

1. Never allow more than twelve hens to one rooster; a smaller number, say eight, would perhaps be better.

2. Never allow the roosters to go together: they are very jealous, and always pugnaciously interfering with each others rights. The strongest lead away the hens: the consequence is, the eggs are fewer and do not hatch so well. Hence the universal complaint that a large number of hens are not as profitable, in proportion, as a smaller number.

3. Chickens require a good deal of water to soften their food, and gravel to grind it. They also require animal food. In winter they often cannot get water nor gravel, nor insects or worms. They are all fed, it may be, with grain, yet do not lay. Supply their natural wants. Give them water, gravel and animal food, such as fat meat, liver, or indeed any kind of fresh meat. Keep them warm, not permitting them to become chilled and they will lay as well in the winter as during any season.

4. Do not permit your hens to set at different times, or rather only a few at a time. This causes broods of different ages, and the younger are usually injured or deprived of a fair quota of food by the older. When your hens manifest a disposition to set, let them remain on chalk eggs until as many as you intend to set are ready. Then place fifteen eggs under each hen. Select your eggs by holding them up to the light. Those which have blueish, watery specks in them, had best be rejected. They do not hatch as well, nor are their chickens as healthy as the eggs that have no blemish.

5. When the young are hatching do not interrupt the hen. When hatched, feed them with Indian meal, with a large proportion of pounded egg-shells. Hens that set "out" as it is called, generally have healthy chickens. I often have examined their nests, and seldom found any remains of the shells in them. The little ones eat them up. I have found that egg shells greatly advance their growth and health.

6. If all the little chickens could be taken from the hen and kept in a room warmed by a stove, I am satisfied from experiments, that they would do much better than to be with the hen.

7. Never allow the young chickens to get wet, nor to become cold. See that they are supplied with ground worms (fishing worms.) They will repay you for this trouble.

8. Three times a year, at least, grease the head, throat, and under the wing of your chickens. A very small proportion of precipitate added to the lard is of service. You will never have your hens troubled with lice if you follow this rule and keep the hen-house clean.

9. Never allow your chickens to be without food. I have often been asked what is the best food to make hens lay? I have made several and repeated experiments to decide this question. The result is, give your hens and rooster, (who by the way requires as much, nay more attention than the hens,) water; gravel, and animal food, and they will lay as well on one kind of food as on another. Potatoes, corn, wheat, rye, oats,

buckwheat, barley, and any thing that they will eat, will do. Boiled food is cheapest and best for hens, especially if kept up all the year, as they should be. I have followed the above rules ever since I owned chickens. We have always had more eggs than was required for use; and our chickens have never had any epidemic among them. With the exception of moulting season, that is when they shed their feathers, with judicious management, hens will lay for two hundred and sixty days in the year.

10. Hens lay well and do well for four years. How much longer they would continue fruitful I know not.

11. There is a great difference in hens. Some breeds lay every day, until they empty the ovary. Others twice in three days. Others only every other day. The creole breed are the best layers I have seen, except a breed at Judge Burr's, in New-Jersey, called Booby chickens. They lay every day. Eggs large, chickens strong, large, and of quick growth. Hens set well.

12. Never frighten nor chase your chickens, unless they get into your garden. In that case I have found the crack of a whip more effectually deterred them than any thing else, from venturing into forbidden ground. I do not know why it is, but they seem more afraid of the smack of the whip than any one would suppose who never tried it.

If these remarks are not deemed sufficient, any other addition will be cheerfully made when required, by

Yours, respectfully,

THOMAS P. HUNT,
The Drunkard's Friend.

[*New-England Farmer.*]

WYOMING, (Penn.)

ABSTRACTS.

IMPROVEMENT OF STOCK, ROOT CULTURE, POTATOES—GYPSUM, NITRE AND SALT, AS MANURES—BREAKING STEERS OF RUNNING AWAY—HOW TO MAKE A FARM PROFITABLE—CULTURE OF THE PEA.

We frequently meet with excellent articles in our exchange papers, which we are unable to transfer to our pages, either on account of want of room, their great length, or having much mixed up in them which would not interest our readers. In order to obviate all these as much as possible, we propose hereafter, as often as our other engagements will permit, to make abstracts—and in this form give them to our readers; and we hope thus to furnish a considerable amount of information, in a condensed form, while nothing necessary to the proper understanding of the articles, will be omitted.

[ED. SO. CABINET.]

Improvement of Stock, Root culture, &c.—A writer in the Carolina Planter (A) recommends for this purpose the planting of a "double supply of sweet-potatoes, and turnips, and make fair experiments with Mangle Wurtzel, and other fashionable roots," and not to condemn them untried. "The next step will be to reduce our stock of cattle one-half by sending to market in the fall all that can be spared, and by devoting to the half retained, the double supply of provender made." The roots for feeding stock he recommends to be boiled. He submits the following as the most economical mode of raising the sweet-potatoe.—"The

last season, (being pressed for time,) I could give them but little attention, and without breaking up the ground previously, I had single furrows drawn five feet apart, and having manure at hand, and the soil being light. I had it spread in the furrow, and covered it by throwing two furrows on each side of the first drawn, thereby forming a sufficient bed,—after thus preparing the land, a boy with a bull-tongue plough, opened a shallow trench on the ridge thus formed; the Potatoes were then planted as usual and covered deep by drawing up the earth on each side with the hoe, and the work of planting was over.

“They were afterwards worked with some care, and the bed enlarged by hauling up the earth at each working. They were laid by early. The Potato planted was the yam—the season was very unfavourable, and the result was the best crop in the neighborhood.

“The Potato is produced from the joints of the vine, and the method adopted was calculated to leave a considerable space between the mother Potato and the surface of the ground in which numerous tubers might be produced. This does away with the necessity of planting from the sprout, which, though an excellent method, is tedious, and especially dependent on favourable seasons to insure success.”

Gypsum, Nitre, and Salt, as manures.—An experiment was made by Wm. J. Alston, Esq. with these manures on corn, planted on a piece of old exhausted river land. A shovel full of compost manure was placed in each hill, with the exception of five rows in the middle of an acre, which were planted without any kind of manure. On five rows, about a gill of finely pulverised gypsum (plaster of Paris,) was sprinkled on the compost of each hill, “a small portion of the gypsum being so dispersed by the wind between the rows as to give the surface of the ground a lighter shade. The next five rows had a strong solution of common salt sprinkled on the compost in each hill. The next row was sprinkled in the same manner with a solution of nitre.” No lime could be obtained to experiment with. One row was manured in the hill with gypsum, without any compost. This was done early in April, [1839.] “The first five rows not having any manure, did not grow off with the same luxuriance as those which were manured. But when the dry weather came on this difference began to disappear, and at this time (Oct. 2d) there is but little difference visible in the size of the stalks or the ears of corn between these five rows and those manured. At no stage of the growth of the corn could we perceive the slightest effect attributable either to the gypsum, the nitre or the salt. The corn grew off with the same luxuriance as did that having only the compost of the cow-pen.” Mr. Alston thinks there would have been a more manifest difference between the corn with and that without manure, had there been no drought. “The effect of the gypsum on the growth of the peas, which were planted in the middle furrow, between the rows of corn, is most remarkable. The pea-vines in the rows having gypsum, have a rich color of the darkest green, and are running on the corn, while the pea-vines of the adjacent rows are not more than half the growth, nor have they the luxuriance of color which characterises those having gypsum. No mention is made of the effect of the other manures for the peas. He thinks peas might be advantageously substituted for clover as a renovator of worn-out soils, and recommends the use of gypsum at the rate of from one to two bushels per acre, mixed with ashes: two parts of ashes to one of gypsum.—*From the Carolina Planter.*

Breaking Steers of the trick of running away.—A writer in the Maine Farmer, noticing this most vexatious of all tricks, says, he knew "a good hearted old farmer who broke his oxen of this trick, by taking a pocket full of *nubbins* of corn, and when he came up with his 'flying stags' as he called them, spoke peaceably to them, and treated them bountifully to the contents of his pocket. In this way when they started and he called for them they learned that his shouts instead of being a signal for a "mauling" were, in fact, an invitation to stop and "take something to eat."

Another mode which he mentions will, perhaps, be preferred by many. A farmer who was plagued with a pair of oxen who would take French leave, without caring how much their services might be required, one day started off from the woods, and could not be stopped until they reached the barn-yard. "The owner said nothing to them when he arrived, but supplied himself with an extra number of chains, and drove them quietly down again to the woods. He then put all the chains he had together, put one end round a tree and backing the oxen up hooked them on—and then turned away to other business. In a few minutes the oxen started again, and being elated with their former success—started with more "*steam*" than at first; little thinking that they were moored by a chain cable. They had made but a leap or two, and begun almost to shout for victory, when—crack O! they came to a dead stand, and their necks were almost broken by the suddenness of the check. The farmer then moved them to another tree—fastened one end as before, and coiled the slack of the chain at the roots.

As soon as the pain was a little over they thought they would try a new "*gallopade*." Hardly had they got a fair start when the chain began to straighten, and they were brought up again "all standing." This was too much for even the "*patience of an ox*," and one of them 'roared right out' with pain and vexation, and they probably mentally resolved to reform their habits, for they never tried to run away again.

How to make a Farm profitable.—“The great secret of success in Agriculture, consists in adapting our crops to our soils, in fitting the soil for the reception, in feeding them well and in giving the proper culture; and the great obstacles to improvement are, ignorance of the principles or science of Agriculture, a blind adherence to old practices, and a parsimony of expenditure.” Beef, pork, or mutton, cannot be made fat unless we feed high, and “it makes a vast difference whether this extra food is converted into flesh in three months or twelve: because in the former case three-quarters of the ordinary food required to sustain life and condition for a year is saved to the feeder besides an equal expense in attendance. It is precisely so with crops. One well fed acre is more productive than three poor fed acres, because it requires only one-third of the labour, and will oftentimes give an equal or greater profit.” An acre of ground producing 30 bushels of Indian corn, will, if manured with twenty-five loads of unfermented manure, and receive good attendance may yield ninety bushels, and the amount sometimes reaches one hundred and twenty. This leaves a balance in favour of the manured acre of twenty-five dollars—if you charge the manure at \$25, but if only the interest be charged, then the difference will be \$58. Thus ten acres of enriched soil will yield \$580 more than ten acres of poor. “But if we suppose—what is, in fact, the truth, that the long manure which causes the great increase in a corn crop, is as good for the next crop as it would

have been, had it been summer yarded, as was once, and is now often the case, the absolute additional expense is nothing—the food of the corn crop is absolutely saved to the farm. I might carry these illustrations to other crops, to farms and to districts of country. In my journeying in the states of New York and New Jersey, I have seen many farms, and some districts, where the intrinsic value of lands has been enhanced a thousand per cent., or in a ten fold degree, by the almost magic influence of improved husbandry, based upon the principles of working no more land than can be kept rich and worked well.

“These facts suggest to the farmer who would keep the fertility and productiveness of his soil, the necessity of

“1st. Consuming his crops, as far as practicable, upon his farm, or returning it to an equivalent in manure for what he carries off.

“2d. Of carefully husbanding every animal and vegetable substance which he can command, of preserving it from waste, and of faithfully and judiciously applying it to the soil as food for his crops; and

“3d. Of studying those laws of nature which govern, to a greater or less extent, the whole business of the farm, and which can never be violated with impunity.”—*Essay by Judge Buel.*

Culture of the Pea.—Recommended by a writer in the *Cultivator*, as an excellent preparative for wheat. The ground to be ploughed and harrowed, and if necessary manured, but not highly, as much manure causes too great a growth of vine, and the peas are less in quantity and inferior in quality. Lime considered an essential ingredient in pea or wheat soils. The kind of pea usually cultivated as a field crop, are the small yellow and dwarf-marrowfat; the latter decidedly preferable, being better for the table, more nutricious, and generally more productive. Product from thirty to forty bushels per acre: quantity required to sow an acre from two to two bushels and a half. The cultivator recommended for “covering the peas, as it gives them more earth than the harrow and less than the plough.” The ground should be left smooth by the roller, or otherwise; as the ease of gathering is greatly dependant on the state of the surface. In harvesting the pea, some farmers hook them up with a scythe, some rake them by hand with the common hay-rake, but the most expeditious method by far, is to use the horse-rake in gathering the crop.” They should be ripe when harvested, and if dry at the time there will be a loss by shelling, but not more when the horse-rake is employed than by the other methods, and four-fifths of the time is saved. They are easily thrashed and prepared for market.

“There is no plant cultivated which will bring pigs forward more rapidly than the pea, if the feeding is commenced as soon as the peas begin to harden and the whole plant fed out to them.” In feeding out let the peas be first soaked, or ground alone or with some other coarse grain, either of which is preferable to feeding them out whole. If cooked the advantages will be greater. In England a mixture of peas and barley is considered superior to any other food for making pork—in this country Indian corn is preferred.

REMARKS.—We have introduced the above, not so much with the view of advising our planters to grow them either for market or feeding pigs, though perhaps they *might* be, advantageously, but to suggest that they may prove serviceable in assisting to restore our worn-out soils by being ploughed under green, especially as they may be grown and

ploughed under without interfering with other crops. They should be sown in the Southern States in October or November, and turned under in March. The great cost of the seed at first may prevent a trial, but these should be grown and saved on the plantation. The first cost, therefore, need be the only out-lay.

[ED. SO. CABINET.]

EFFECT OF LIGHTNING ON TREES.

IN the *Annales d'Hort. Soc. de Paris*, vol. xxii., p. 120 to 134, an account is given of sixteen trees, which have been struck by lightning, in different parts of France, at various periods, from 1813 to 1837. The effects appear to have been very different on different trees. In some, the leaves only were destroyed; in others, the leaves were but slightly injured, but strips of bark appeared to be torn off; in some, the branches were broken, and no other injury done; in some, the trunks were split; and in others, no injury was done to the top of the tree, but the roots were laid bare, and torn in pieces. In several cases, where the trees were standing near houses, or hay or corn ricks, they seem to have acted as conductors to the electric fluid, and saved the cottage, or the corn-stack or hay-rick from being struck by the lightning. This was particularly the case where the Lombardy poplar or the silver fir had attained a great height. The author of the article, *Vicomte Hericart de Thury*, concludes with the following advice:

1. Travellers and country people, reapers, hay-makers, &c., during the time of a thunder storm, should never take shelter under detached trees; more especially under a tree which stands at a distance from any other; such trees acting as conductors.
2. To take shelter rather under a bush, than a tree, and the lower and more spreading it is, the better.
3. Never to take shelter on that side of an object, from which the wind or the storm comes, or, indeed, in the direction of the wind or the storm. Thus, supposing the storm proceeding in the direction of east and west, then the north and south sides of a bush, or other sheltering object, are to be chosen, and not the east or west side.
4. In the moment of danger, the safest way is to recline at length on the ground, choosing a furrow or ditch, if any should be at hand; but no time should be lost in searching either for a furrow or ditch, or for a bush or a hedge, because the upright position, maintained during the search, is incomparably more dangerous than the horizontal one.
5. Always to bear in mind that the danger is great in proportion to the shortness of the time which elapses between the appearance of the lightning and the noise of the thunder.
6. Those who cannot afford the expense of lightning conductors to their houses, farm buildings and ricks, should plant near them late growing trees, such as the pyramidal oak, (*Quercus pedunculata pyramidalis*), the Lombardy poplar, (*Populus fastigiata*), the cypress, the larch, the silver fir, the spruce fir, &c.

[Annales d'Hort. de Paris, as translated in Gard. Mag.]

TALES, SKETCHES, &c.

For the Southern Cabinet.

THE REVOLUTION OF 1719.

A HISTORY.

The change in South-Carolina from the government of the "Proprietors," to that of the "King," which took place in the year 1719, was an event of no less importance on account of the principles which were involved in it, and the consequences, to those engaged, which resulted from it, than the more notorious Revolution of 1776.

The cause which produced dissatisfaction with the government of the Lords Proprietors, which at length led to an open rupture, and ultimately to the determination on the part of the people of South-Carolina, to throw off their government, are to be sought for in the earliest history of the Province, and resulted from defects in the formation of the government and from the situation of the parties, of which I propose to take a hasty survey, and to show, that the reasons for that change were fully sufficient, and the results most important to the prosperity and good government of the Colony.

A short time after the restoration of King Charles II. application was made by the Earl of Clarendon, the Duke of Albemarle, Lords Craven, Berkely and Ashley, Sir Geo. Carteret, Sir Wm. Berkely, and Sir John Colleton, for a charter to form a Colony in that part of North-America, now comprehended in the States of North and South-Carolina. The charter was granted in 1662, and was large and extensive, both as to the territory granted and the powers conferred on the Lords Proprietors. This charter was confirmed and enlarged by a subsequent charter granted in 1665.

The Proprietors were not slow to avail themselves of the powers granted by their charter, and a short time after the second charter was obtained, they set themselves to frame a system of laws for the future government of their Colony. But in the outset they unfortunately committed an error, which they could not perceive, or would not remedy, and which may be regarded as the principal cause of the slow progress of the Province under their government, and of its final overthrow.

The Proprietors not satisfied with the model of a government formed upon that under which they lived themselves, which, notwithstanding its defects, was the freest then known, were determined to form a system of rules and regulations for an imaginary state of society which they fancied their laws would create, and to that end they applied to John Locke, the famous author of the *Essay on the Human Understanding*, who drew up for them one hundred and twenty regulations, then and since so well known, as the Fundamental Constitution of Carolina.

At this distance of time, with a full knowledge of the events which have transpired since the first settlement of Carolina, it would be difficult to conceive of a form of government less suited to the wants of those for whom it was intended, than the one hundred and twenty Constitutions of Mr. Locke. They never became part of the law of South-Carolina, however; and though they found great favour with the Proprietors, and were strenuously urged by them on the assemblies of the people, the latter wisely held on to the *Charter* which "particularly and expressly provided for their civil liberties," and rejected the *Constitutions*, which only had to offer empty titles of nobility for the substantial advantage of the Common Law method of trial by Jury, which the Constitutions took away,† and the negative of the Proprietors on the Acts of Assembly, which those constitutions imposed on them.‡

The attempt of the Proprietors to govern a Colony at a distance, by a system of laws wholly inapplicable to their situation and wants, produced great and increasing dissatisfaction with the proprietary government. Struggling with innumerable difficulties in an unsettled country and an inhospitable climate, the unwise and tyrannical acts of the Proprietors and their deputies, exasperated the colonists at times almost to frenzy. To be forced to pay quit-rents upon land which scarcely yielded a bare subsistence, and have Martial Law enforced upon them because they murmured at the inflexible exaction, tended greatly to alienate the hearts of the people from those, they were disposed to regard as their protectors. Governors, Judges, and other officers appointed by the Proprietors, instead of salaries, received the fees of office, and often enriched themselves by exorbitant exactions to the impoverishment of individuals and the ruin of trade. Complaints of these evils were wholly disregarded, and even the assemblies of the people were sometimes filled by partisans of the Government, by shameful interference in elections; and laws passed that body manifestly against the interests and wishes of the great body of the people.

It became an object with the majority of the Proprietors to establish in South-Carolina the Episcopal form of Church government, and they persevered in that intention with the most inflexible obstinacy, in opposition to both the spirit and letter of the Fundamental Constitutions by which *they* were bound, and in opposition to the wishes of a majority of the people who were to be affected by the change.

In pursuance of this intention they instructed their deputies in the Province to use every means to accomplish their object. Not finding the House of Assembly at that time proper for their purposes, the Governor dissolved them, trusting to the extraordinary means which were to be used, to obtain a more obsequious one in their place. No exertions were spared—no means left untried, to obtain a majority: and they succeeded.|| In this assembly not only an act was passed which divided the State into parishes, and established the form of worship of

† 69th Constitution. ‡ 33rd Constitution.

|| In a petition carried to England by Joseph Boone, and presented to the House of Lords, it is asserted, that "the elections in 1703 for the House of Assembly were managed with great injustice and partiality, and all sorts of people—aliens, Jews, servants, common sailors, and negroes, were admitted to vote.—*Hewit's Hist. So. Ca.* p. 152.

the Church of England,† but also an Act which excluded from a seat in the House of Assembly, every one who did not strictly conform to the established worship of that Church, and punished by heavy fines any one offending against the law.‡

It was not one of the least irritating incidents of that time, that the popular party was deserted by some of those in whom they had placed the greatest confidence. Nicholas Trott, whose active and intriguing disposition never suffered him to remain an idle or indifferent spectator of any mischief—had before this time, by his learning and talent, and his unwearied exertions in the cause of the people, been elected Speaker of the House of Assembly, and no one in the Province was possessed of greater influence; but on receiving the appointment of Attorney-General, he suddenly abandoned his former friends, and was ever afterwards, during the existence of the Proprietary government, at once caressed by the Proprietors and detested by the people.

The colonists finding themselves, (by the means which had been used to obtain a majority,) oppressed by the body intended by the Charter to watch over their interests, were so loud in their complaints against the illegal interference in the late elections, and the undue returns made by the Sheriff, that Sir Nath. Johnson (the Governor,) and his Council, permitted some slight modifications of the law. But the changes made by them, did not correct the evil complained of. It was looked upon as a great grievance, that the elections were held only at Charleston, and the inhabitants living at a distance "were put to great expense of time and money, besides all other hazards in coming to choose members of the Commons House of Assembly," and it was not until the year 1716,|| that an Act was passed, to the great satisfaction of the people, which appointed places of election in each Parish, and placed under new safe-guards the freedom of elections.

But the satisfaction of the people was of short duration. However necessary such a law was at that time, the fact that it was agreeable to the people made it objectionable to the Proprietors, and an impression on the part of certain members of the Council that it would diminish their influence in the Province, brought about its repeal in July, 1718.

Such imprudent and harsh conduct was attended by its natural results: deep resentment for such repeated wrongs, and a fixed determination to endure this galling yoke no longer. Finding that the Proprietors, who derived all the power they possessed from the Charter which placed the Province under their subjection, had set aside that Charter,—that they would admit no rules to govern by, but their own wills; and without inquiry as to the source from whence their power was obtained, "determined that to be law, which they thought reasonable, or found to be convenient," the colonists began seriously to prepare for resistance.

This resolution was not a little strengthened by the reflection, that their allegiance was required by an imbecile government, which was unable to return the reciprocal duty of protection,—that their own efforts to protect themselves had been thwarted by the Proprietors, and they were denied even the privilege of more effectually guarding their own frontier, as in the memorable instance of the appropriation of

† Act of Assembly, passed Nov. 4, 1704. ‡ Act of Assembly, passed May 6, 1704.

|| Preamble to Act of Assembly, passed Dec. 15, 1716.

Indian land, to settlers for that purpose.^t No circumstances were then known to justify or even palliate that conduct of the Proprietors, which proceeded from the most unmitigated selfishness, and there were but few in the Province that did not anxiously desire the end of that weak and tyrannical government. But that was at hand.

The colonists having now firmly made up their minds no longer to submit to the government of the Proprietors, the mode of effecting their object became the subject of enquiry. This when resolved on was accomplished without difficulty; and the moderate, but firm manner, in which the Revolution was commenced and conducted to its final and fortunate issue, reflects great credit upon all engaged in the great enterprise, and is worthy of being held in perpetual remembrance.

The members of the House of Assembly, finding the people ripe for revolt, by the extraordinary unanimity with which they signed an agreement to sustain each other in their resistance to the Proprietary Government, proceeded at once towards their object. They resolved themselves into a Convention—formally declared that the Proprietors had forfeited their right to the government of the Province, and invited their Governor to take possession of it in the name of the King. Governor Johnson refused however, not without indignation—as he was unwilling that any one should suppose him capable of betraying the interests of those who entrusted him with the government—and the Convention then elected James Moore their Governor, took possession of the fortifications of the city and the command of the militia of the Province, and having sometime after obtained the sanction of the British Government to their Acts, the resolution was complete.

Rapid and instantaneous was the progress of South-Carolina after the change of government, and nothing is more conclusive of the unwise policy of the Proprietary Government, than the slow increase of the Province in population and wealth under their subjection, and its subsequent prosperity.

I have done. I might have extended this summary of an important event in our history—but I have done.—

*Jam satis est: ne me Crispini scripia Lippi
Compilasse putas, verbum non amplius addum.*

D. F. I.

^t The tract of country lying between Combahee and Savannah rivers, which was recovered from the Yamasee Indians, in a sanguinary war, by the good conduct of the colonists, was by an Act passed June 1718, appropriated to any settlers from Great Britain and Ireland, who would take possession of it, and protect that frontier of the Province. About five hundred Irish emigrants embraced the offer, and when they were fairly in possession of it, the Proprietors repealed the law—had the land laid out in large baronies; and the unfortunate settlers driven off, who having spent what money they brought with them, after great suffering, some went off to the Northern Colonies, and many perished from want.

For the Southern Cabinet.

LOVE AND DEATH.

"Louis de Bourbon, the young and warrior count of Montpensier, died suddenly of grief, whilst viewing the tomb of his father, the Duke of Bourbon, which was opened at his command, amid all the pomp of a magnificent service."

It was the twilight hour! Deep silence hung
Like a lone watcher o'er each sainted shrine,
Where pure Religion burnt her lamp divine,
'Mid fair Italia's temple, and there rung
No sound upon the stillness, save perchance,
When the slight gale, stirring the citron leaves,
Display'd their silver linings to the glance
Of the enamour'd moon, or some bird weaves,
Lur'd by the quivering light, a broken chain
Of wild and dreamy song.

But hark! that toll
From the old Minster bell; and now the whole
Of the antique and consecrated fane
Was kindled with a red and glaring light,
Stronger than mid-day; while its fretted bight
Return'd the solemn anthem, as it rose
'Mid clouds of incense, blent with organ clear,
While the low dirge was echo'd at its close,
By voices that grew stronger on the ear
At every moment, till the sounding aisle
Rang with the heavy tread of a full train
Of mailed men, that through the sainted pile
Mov'd to one distant spot: each tinted pane
Shedding a crimson glow upon their forms,
And every steel-bound armour flashing back
The torch-light, clear as lightning amid storms.
On! on! they prest: what stay'd them in their track?
A gilded coffin! all alone it lay
'Mid a full flood of brightness. Its clos'd lid
Bearing a sword and shield, yet almost hid
Beneath the floating banners, bright and gay,
That wav'd around, as if they heeded not
What spoil it was, they cover'd.

From the throng,
Advanc'd a youthful chieftain to the spot,
And low he bow'd in silence, deep and strong,
Beside that stately bier, until at length
He breath'd in hollow accents, strangely clear,
"Once more I would look on him;" with quick fear,
His followers rais'd the lid, and back recoil'd,
As chill'd with death's cold presence. He alone
Shrank not away, but stood like sculptur'd stone,
Gazing upon that image quite bespoil'd
By fate's relentless grasp. Long—long he stood
Viewing those smouldering ashes, till his breast
Heav'd like an ocean-billow, and the blood
Forsook his pallid lip and brow comprest,
As to the bier he bow'd his youthful cheek,
And breath'd his spirit's woe, in accents weak.—

"Dust! dust! and is this all
That death hath left for me?
What boots it then, the shroud and pall
So closely wrapt, 'round thee?

"I thought once more to gaze
Upon thy blessed face;
But, father, the rude worm, that preys,
Hath left of thee, no trace.

"I have brought victory's crown

To set upon thy brow;

Oh! better 'twere to see thee frown,
Than look on thee, as now.

"Yet no, my father! no—

This anguish grows too wild;

Better to see thee, even so,

Than frowning on thy child.

"Didst thou not know how well

I lov'd thee, e'en to death, and boldment

And how my life was but a spell

Bound in thy living breath?

"And yet thou couldst depart

And leave me, all alone;

Oh! take me, take me to that heart,

Since to it, I have grown.

"If the sun hide its rays,

Must not the flow'ret die?

And can the wind-harp wake its lays,

Unless the breeze be nigh?

"Thou wast that sun to me,

And thou, that wakening gale,

And yet no answer comes from thee,

To soothe my spirit's wail.

"Oh! by the days of yore,

When seated by thy side,

I drank in love's most precious lore,

And aim'd no thought to hide.—

"And for that mother's sake,

Whose earthly course is done,

My sire! let thine ashes wake,

And speak unto thy son.

"Hush! hark! methought a voice

Stole from his distant home;

It calls me! now my heart rejoice—

Father! I come—I come!"

And with a wild and piercing shriek he fell

Upon that couch of death, and closely prest

His arms, as folding something to his breast,

With a convulsive shiver, that full well

Told of the inward strife; until at last,

Crush'd, like a reed beneath the tempest's blast,

His slight frame yielded to the awe-struck hand,

Which crowded 'round him, and some trembling hand

Unloos'd the heavy breast-plate, and then took

The plume-crown'd helmet from the drooping head

That sunk beneath it;—but one single look

Told 'twas in vain—the youthful Prince was dead!

MARY E. LEE.
Charleston, (S. C.)

For the Southern Cabinet.

AN INDIAN LEGEND.

FROM A STUDENT'S PORT-FOLIO.

"How much further do you intend to lead me, Harry, over these broken rocks, the cold, biting east wind, cutting me through and through every time it sweeps across the beach, and my shoes collecting almost specimens enough for a geological cabinet?"

"Have you no taste at all, Jack, for the beautiful in nature? Just look before you, where the bay opens into the broad Atlantic. See the thousand white sails that are spread over it, as far as the eye can reach; and that long, marbled beach yonder, as clear and white as a Dutch house-wife's parlour; although it looks so smooth now, it has been the last pillow of many a wrecked sailor."

"Sublime, truly—but only one step from the ridiculous," said I, picking myself up from an inverted position, into which a treacherous stone had betrayed me.—"To a poor fellow, shaking like an ague fit, with his feet half pumiced, no beauty of Nature can equal a fine stuffed arm-chair, with another for his pedestals, and permission to gaze, at leisure, upon a well filled grate—"

"With cousin Lucy, I suppose, leaning over the chair, making your wearisomeness an excuse for cooling your reflective organs, with her little fingers baptized in 'double *Extrait Eau du Meil*.'—But, come on; by some means keep your corporeal frame in motion, till we reach that high cliff yonder, that juts out so far into the ocean. There is a wild legend of 'the olden time' connected with it, which will serve as quite a spice for your evening's conversation."

"Stop a moment, Harry. Before I consent to be bored in the cold, let's make a few preliminaries. You must know then, I have a mortal antipathy against moon-beams. You are to give me your word, I shall hear none of this; nor music of the spheres, nor any of that antimonial trash of which I am so heartily sick. But if you have a good sensible tale—why, Harry, I don't know but I will try, for your sake, to keep soul and body together, till you have fairly released yourself."

"Keep perfectly calm, Jack. Your delicate sensibilities shall not be disturbed—the legend is of too old a date to partake of the present day's characteristics.—This rugged bluff, although it appears now naked of verdure, was once covered with a dense forest, beneath whose shade the Sagamore of the "South-shore Indians" had reared his wigwam, and drawn around him the boldest chieftains of his tribe. Just across the bay, where the water makes up into that deep bend of the coast, the Northern tribes had made their chief rendezvous.

"For a long time a bitter enmity had subsisted between the two nations. The feud had been handed down from father to son, aggravated by mutual jealousies and aggressions. If perchance, a straggling Indian of the Northern tribe, ventured too near the limits of his Southern neighbors, his scalp was sure to be seen swinging upon one of the branches of the trees that hang over this precipice, while the same emblem, gracing some conspicuous promontory on the other coast, told the reward of like temerity; and if their little barks, skirting the waters of the bay, should chance to meet; a struggle ensued, that was only ended

by the dying curse of one party. At length the hatred had become so strong, that each determined upon the extermination of the other. For a long time neither party wished to make the first attack, but contented themselves with keeping a close watch within their own limits, with a keen eye upon every movement of their foe. But one night when an uncommonly fierce "North-wester" swept across the bay, raising such a sea as almost to forbid the possibility of a boat's living upon the water, and the storm and darkness above, adding still more to the horrors of the scene, the Indians upon the Southern shore having become wearied with their long confinement, and judging that no mortal would venture upon the bay, determined upon a general war-dance. Eagerly they set themselves to the work of preparation, and very soon, amid the dark shadows of the forest, a large fire was kindled, curling its thick folds up around the lofty trees, and spreading its dimmed glare out upon the storm-clad ocean. And now the tall, gaunt warriors, painted more hideously than usual, with the dark scalps of their enemies hanging at their belts, rush into the ring, dancing and leaping in frantic merriment, making the whole welkin ring again with their boarse echoes, till the very voice of the thunder was drowned in the loud strains of that wild war-song.

"That night also, the Northern tribes had conceived a plan of a far different nature; for though the blasts of the tempests howled through their forest-homes, tearing up by its roots the mountain oak, and dashing the white foam of the Atlantic upon the rugged shore—though not a star could be seen amid the darkness, whose light should warn them from the rock-girt island, they ventured through the bay. These bold-hearted chieftains, nothing daunted, determined that very night to bury their tomahawks in the blood of their foes.—A chosen company, with the bravest warrior of the clan at their head, were marshalled upon the shore—and ever and anon, as the gleaming lightning shot through the darkness, a demoniacal smile of anticipated revenge, could be seen lighting up their swarthy visages. The canoes were launched, and though the first swamped, and its occupants were dashed in pieces upon the rocks, yet they hesitated not in their purpose, but boldly pushed out upon the waters, and baffled with almost superhuman strength the combined fury of the storm and ocean. As they drew near the other shore, the fires of the revellers could be distinguished through the mist, serving as a guide to their landing-place, and after a long, wearisome struggle, they drew up their boats under the shadow of this cliff. The song had grown louder as the merriment of the evening proceeded—the gray-haired and the youthful chieftains all joining in the exciting dance—when, as by magic, with a shriek loud and fearful, the armed warriors rushed into the very midst of the circle, and commenced their bloody work. Although surprised, in a moment they had grasped their hatchets and returned with tiger-like ferocity, the attack of their invaders. Stung to the quick by the thought of their disgrace, they rushed madly upon their foes, determined to destroy them or die in the struggle. And now the fierce war-song—the startling shout and mingled curses, echoed far back in the forest depths, while the burning wigwams cast a fitful glare over the whole murderous scene. Warrior after warrior had fallen, locked in each others dying clutches, glancing defiance with their last expiring energies. The Southern chieftains had driven back their foes almost to the verge of the cliff, and they stood there contending for every inch of

ground, while their enraged enemies pushed on, dealing destruction at every blow. And now the two Sachems of the tribes rush together, both of them the boldest warriors of their tribes. With the strength of a lion, the Southern Sagamore grasped his antagonist, and hurried him to the very brink of the precipice—already his hatchet gleamed in the light, about to fall upon the head of his victim; when his arm fell, palsied by a blow from an unseen hand. Heavily he dropped upon the earth, grasping with his left hand the throat of his foe. Long and fiercely did they grapple with each other, till by some means the Northern chieftain released his hands, and tearing his knife from his belt, held it just ready to plunge into the heart of his foe, when the other, with a sudden spring, cleared the edge of the cliff, dragging with him in his embrace, his clenched victim. For a moment there was a fearful silence, as the two bodies fell struggling down the deep abyss, striking upon the projecting edges of the rocks, and finally, with a heavy plunge, falling into the sea. It was a signal for the cessation of hostilities. The few Indians that remained, wounded and dispirited, embarked in a single canoe, to bear back the sad intelligence. The remnant of the other tribe leaving behind their smoking cabins and the bodies of the slain, wandered far back into the country—and from that day to this, the cliff has borne the expressive name of 'Skull-head.'

"But come, Jack, it is my turn to beat a retrograde. You seem to sit as if petrified. What say you now to a coal-fire, &c.?"

"Really, Harry, the East wind does not seem quite so bad as it was a short time ago."

BY MRS. SIGOURNEY.

PATRIOTISM is, to be willing to make sacrifice and endure hardships for the good of our country. History gives many instances, where property has been devoted, and life itself laid down, to aid in liberating the native land from oppression.—Patriots often become illustrious by their deeds, and their names are conspicuous in the annals of history. Yet, there is much true patriotism on a humbler scale, which never wins the notice of the world. An instance of this I am going to relate to you.

During the contest between Great Britain and the United States, which is called the Revolutionary war, our army endured many hardships, especially in the severe winter with which the 1779 closed, and that of 1780 began. They were then stationed at Morristown, in New-Jersey.

I once knew a soldier of the Revolution. His head was white as if covered with snow. He filled a respectable rank in society, and was beloved for kindness of heart and piety. He was gratified that I asked him for tales of other days: and he told me the following story of the winter at Morristown.

Early in the month of November, 1779, (said he) our army, under

General Washington, left the vicinity of Hudson River, and the White Plains, to go into winter quarters. Snow had already fallen, so that we had the prospect of a dreary season. The roads were in a most uncomfortable state, from rains and melting snows, and we marched four days with feet and limbs continually wet and cold. We reached Morristown, weary and way-worn, and were permitted, the first night, to sleep in the houses and barns of the inhabitants.

The next morning, early, we were ordered two miles northward, to a thick dark forest, to cut down trees, and build huts, to shelter us during the winter. Almost every day, snow fell, and the cold was extreme. We slept on the frozen ground, wrapped in a single blanket. We worked very hard to complete our hovels of logs. In about a week, they were ready to admit their tenants. We took possession of those rude dark cabins, with more joy than a king enters his palace, for we better knew the value of shelter from a storm.

We now hoped to pass in quietness the dreary months, till spring should call us forth to the service of our country. But greater trials awaited us. Ere long, provisions began to fail. The severe cold had frozen, much earlier than usual, the waters of the Hudson and the Delaware, so that no supplies could arrive by boats. New-Jersey was not able, for any length of time, to provide from her own resources, for such a multitude.—Our daily allowance of food was reduced to one-half, then to one-quarter. Only four ounces of bread, and four of meat, were served to each man, for twenty-four hours. The cravings of hunger were intense. Still the afflicting scarcity grew more severe. This scanty pittance was at length dealt out only once in two days. But the suffering was borne with astonishing patience. The half-famished soldiers sustained themselves with the love of their country, and the hope of better times. Some even strove, by amusing and playful conversation, to keep up the spirits of their comrades. Yet a deeper trial was reserved for us. Four bitter wintry days and nights not a morsel of food was given out. None could be procured. The strongest men became weak, and the voices of the more feeble grew so faint, as scarcely to be audible. But there was no murmuring. We felt it was the poverty of our beloved country that we were sharing, and believed that, in God's good time, relief would come.

After this dreadful abstinence of four days, some wheat was obtained. One gill of raw wheat was the portion of each soldier. We hastened to boil and eat it—drinking also the water in which it had been boiled.

While we were devouring this food, a gun was heard within the encampment. A lean, miserable dog had wandered thither. The poor animal was immediately shot, and cooked for some of the officers, who were so reduced by famine, as to be thankful for such a repast. Another fast of four days ensued, rendered more painful by extreme cold, which threatened to turn every thing into ice.

On the fifth morning, before the sun arose, a majestic man was seen, with the bridle of his horse around his arm. He stopped at the door of every hut. He affectionately asked each soldier how he fared. It was Washington. Tears escaped from his eyes at the sight of our sorrows. Only the night before, had he learned their full extent. He had not slept. Ere the dawn, he hastened, notwithstanding the terrible cold, to visit us. His countenance and words revealed the deepest sympathy. At the sight of his distress, many cheerful voices exclaimed, "General,

we do not complain. We can bear this longer, if it is the will of Heaven. We are ready to defend our country whenever you call us to the field." This patience and patriotism affected Washington still more keenly. He could scarcely command his voice, as he thanked and blessed them. He assured them, that if it were in the power of man, relief should be sent them before the close of the day.

A little past noon, the steward's call was heard throughout the camp. We rushed to the spot. To each of us was weighed out, four ounces of beef, as free from bone as possible. Overcome by the fierceness of appetite, some swallowed it raw as soon as it reached their hands. On the following day, we received four ounces of bread, and much in the same manner, our food continued to be regularly, though scantily distributed, until winter was past, and spring recalled us to other trials and perils. Yet scarcity of provisions was not the only cause of our suffering at Morristown. The weather was fearfully severe, and our clothing old and insufficient. Snow for a long time covered the ground, to the depth of three and four feet. During more than six weeks, not the least thawing was perceived, even in the noon-day sun. No water could be obtained by the soldiers, but melted ice and snow; they were generally destitute of shoes, so that the guard when they were upon duty, might be tracked by the blood from their feet, reddening their path of snow. But every hardship was bravely endured, for the sake of the love we bore our country. Looking with hope to her independence, we took part in her hard lot, like children with a parent—and suffered hunger, and cold, and nakedness, and the want of all things, without repining.

Here the aged man finished his story. And when I reflected how many young people there are, who have been always provided with food, warm clothing, and a comfortable shelter, and yet are little thankful for such favors, perhaps sometimes discontented; I thought it might be well for them to hear, how nobly great sufferings were endured by men of other times, who loved their country.

If any of you who now read this account, should ever travel through Morristown, and admire its beautiful scenery, and pure atmosphere, it would be well to search out the spot where our army were encamped during that severe winter.

It is cheering to those who have borne such hardships, to know that the children of that country for whose liberties they toiled, remember their services with gratitude. Become acquainted with the forms in which their patriotism was tried, that you may be able to tell your own children, how the blessings of our free government were purchased. Yet while we praise the patriots of our revolution, let us never forget that war is a great evil. It must ever be considered so, when we take a serious view of the miseries that it occasions. Pain, mourning and death, the interruptions of the honest pursuits of industry, and those arts of peace, which constitute the prosperity of a nation, are in its train. Prince Eugene, of Savoy, who was a celebrated warrior, acknowledged, "that a military man becomes so sick of the bloody scenes of war, that when he has enjoyed peace, he is averse to recommence them." I wish that the first statesman who is called to decide on war, had seen actual service. What pains would he not then take, to seek in mediation and compromise, how to avoid the effusion of so much blood. Such wars as

are rendered necessary for self-defence, or the preservations of liberty, cannot be reprobated like those which spring from the promptings of ambition, or the desire of conquest. Let us pray that our beloved country may be kept from the evils of war, and that we may be enabled to show our patriotism, not in the field of battle, but by setting an example of every virtue, as good and peaceful citizens.

For the Southern Cabinet.

NOTES OF AN EXCURSION FROM PHILADELPHIA TO JACK-

SONVILLE, (ILL.)—MADE IN THE SUMMER OF 1839.

LANCASTER, Penn., July 9th, 1839.

You will perceive, by the date, that I was detained in Philadelphia one day longer than I had anticipated; this was owing to the fact that I discovered too late on Saturday to remedy the evil, that my Eastern money was uncurred in Pennsylvania. Through the kindness of Mr. T., however, I was enabled to exchange it on Monday for United States bills, without discount. This delay was more than compensated by the pleasantness of another day in Philadelphia, during which I received the attentive civilities of many kind friends, and particularly of Mr. and Mrs. D., with whom I dined and made some delightful excursions about that city of marble palaces and fountains, and its beautiful environs.

I had engaged a seat in the six o'clock morning cars, thence to Pittsburgh; but by a strange misadventure, the omnibus called at the *wrong* "Clinton-street" for me; and I was left, to the great discomposure of my friends Messrs. C. and G., who were compelled to go on without me. I had no choice but to take the next train of cars at 9 o'clock: and after a very pleasant ride of five hours reached that place at two o'clock, distant seventy miles from Philadelphia. This will occasion the detention of another day on my journey, as I shall have to wait here till the arrival of the morning train from P., which will be about eleven o'clock. But I have not a single regret.—This detention has given me an opportunity of exploring this pretty and important town, which when a school-boy I learned from "Morses' Geography" was then the *largest inland town in the United States*. It now has a population of ten thousand inhabitants, is a place of considerable trade, and is situated on a beautiful eminence, in the midst of decidedly the most fertile and highly cultivated region of country my eyes ever beheld. But unlike New-England it was not settled by "the Puritans;" and you look in vain for the spirit of the descendants of the Puritans here. I have much to tell you of the result of my observations, but the limits of this letter will not admit it.

STEAM-BOAT MAINE, ON THE OHIO RIVER, July 15, 1839.

Five days have elapsed since I dated the above, during which I have passed through so many new and interesting scenes, that I look upon this limited sheet with despair as to any expectation of being able to tell in it, the thousandth part of what I wish to communicate. Indeed, I can do but little else than barely to trace out my road to you. The train of cars from Philadelphia, having arrived at 11 o'clock, precisely, I left Lancaster on the morning of the 10th, and passing rapidly through a rich and highly cultivated country along the banks of the beautiful Susquehanna, reached Harrisburgh, the capitol of the State, at 3 P. M. There we exchanged the rail-road cars for the canal packet-boat—a great change indeed. For from being impelled forward, with an incessant clatter at the rate of twenty-five miles per hour, we now found ourselves gently and noiselessly floated along the tranquil surface of the canal at the rate of but four miles per hour. This slow travelling, however, afforded me an opportunity of observing more satisfactorily the great, the stupendous State-works along the whole route. These beautiful stone-bridges, aqueducts, viaducts, inclined-planes, tunnels, cut through solid mountains of rock eight hundred and nine hundred feet in length, &c. But nothing could equal the interest with which I gazed upon the sublime, the magnificent works of nature, and of Nature's God, about me.—“The eye was never satisfied with seeing.” The course of the canal following first the banks of the broad and rapid Susquehanna, then crossing that river by a bridge half a mile in length, strikes the Juniatta at its junction with the Susquehanna. For one hundred and thirty miles we wound our way along the lovely valley of the Juniatta, the canal being constructed so near the bank of that river, that from any point a stone might be cast into the stream. A mountain range, on either side followed us, at times seemingly hemming us in, and forbidding us a passage—it was covered with the most luxuriant forest trees, now coming quite down to the waters edge, and now retiring behind richly cultivated farms, and rising at times to the height of 1200 feet. Thus we proceeded till we reached Holidaysburgh, a town but six years old, but destined soon to be a great city. Here we left the canal-boat which had been our home for two days and two nights, and took the rail-road cars to cross the Alleghany mountains thirty-eight miles to Johnstown. These towering mountains we ascended by five inclined-planes, upon which the cars were drawn by a stationary engine and descended on the west side by five more in the same manner. At Johnstown we again left the cars for the canal-boat to Pittsburgh. Our course now meandered first through the beautiful and rich valley of the Conemaugh, then of the Kiskiminitas, and last of the Alleghany rivers. The mountains which towered up to a good height on either side, abound in mineral productions, and we were continually passing iron-mines and foundries, coal-mines and salt-works. One day and night on this line of the canal brought us to its termination at Pittsburgh, an immense city of fifty-thousand inhabitants situated at the head waters of navigation of the Ohio. The extent and trade of this city far transcended my expectations. It is the great mart of the United States, for the manufacturers of iron and glass works. Bituminous coal dug out of the surrounding mountains, furnish the best of fuel at the rate of one dollar

twenty-five to one dollar fifty cents per ton. It is universally used, and the dense clouds of smoke thrown up from its numberless factories gives to the place a murky aspect, disagreeable alike to the senses of seeing and smelling. We found between forty and fifty splendid steam-boats ready for their departure to various destinations down the river, and engaging a passage in one of the best for Cincinnati, in two hours after our arrival, we were dashing down the stream of the beautiful Ohio in gallant style. In descending the river our boat stops from one to two hours at every important town on its banks. This is a very pleasant arrangement to travellers. Already I have thus been enabled to enjoy a stroll about the streets of Steubenville and Wheeling—the first on the Ohio and the last on the Virginia side of the river. At Wheeling I met my friends Messrs. C. and G. very much to our mutual gratification; and have just returned on board with them, after having explored a coal-mine, excavated into a mountain to the extent of fifteen hundred feet. Our steamer is again "going ahead"—on board we have every thing to gratify the eye and the appetite. Nothing can exceed the rich profusion of comforts and luxuries of these good Western steam-boats.—I hope to reach Cincinnati by Wednesday.

STEAM-BOAT MAINE, OPPOSITE MAYSVILLE, Ky., July 17.

In consequence of the low state of the river, our steam-boat has not ventured to run at night since we left Pittsburgh. This affords me an excellent opportunity of seeing the country.—We shall travel faster after leaving Cincinnati. Last night we reached Portsmouth, (Ohio)—a beautiful town on the banks of the river, and did not leave there till one o'clock P. M. At Maysville we shall make a short stay and reach Cincinnati to-night. To-morrow I hope to be on my brother's farm.

I remain yours, &c.

J. H.

[TO BE CONTINUED.]

THE SKY-LEAPERS.

MUCH of the strong excitement, felt, on beholding a chain of lofty mountains, arises from the conviction, borne upon our hearts by annals of all tongues and people, that on lands such as these, the foot of the invader has seldom rested, and has never long tarried. We view these gigantic ramparts over all the known world, as limits placed by the Creator to the unruly ambition of man. Wherever they rear their ancient heads, they are proud in the recorded defeats of leaders, whose fame "hath filled the ends of the earth," often by a mere handful of peasantry dwelling amongst them.

And on hearing of the subjugation of a mountainous country, we feel as though the warders of God's forts had been unfaithful. So often, from the pass of Thermopylæ to the heights of Morgarten, have the brave proved their own hills to be impregnable, that no tale of overwhelming numbers will counteract the feelings that a mountain-land, so won, has been betrayed by the cowardice of the inhabitants. Of this cowardice, history unfortunately gives us some proofs. But these

few instances of weakness and treachery only serve to give the force of strong contrast to "the bright examples" of multitudes of higher and nobler spirits. These reflectious apply more especially to Norway, (or in the old writing Norroway,) the scene of tradition which now awakens them; and which often rouses the warm Norse blood, when told by some of the other peasants to the crowders round a cottage hearth, on a long winter's evening.

In 1612, there was a war between Norway, and Sweden, distinguished from a mass of forgotten conflicts, almost perpetually raging between these rival and neighboring countries, by the tragic fate of Sinclair's body of Scottish allies—celebrated, as many of our readers will remember, in a fine Norwegian ballad. It is well known that the Scots landed on the west coast of Norway to join their allies the Swedes, went along the only valley-pass leading to Sweden, and were annihilated in the deep defile of Gulbransdale by the peasantry. At the time when they should have arrived at Sweden, a small body of Swedes, encamped in Jemtland, resolved to meet their allies, (of whose movements they had intelligence;) and escort them over the frontier; crossing by the hill passes, and uniting with the Scots on the other side. This band, to whose fortunes we attach ourselves, numbered but three hundred warriors, but they were the very flower of Sweden. They resolved to penetrate the barrier at the most inaccessible point, believing that the Norse would collect in the southern country where they were opposed by a Swedish army, and rest secure in the deep snows, which rendered the hills impassable, for the defence of their mountain frontiers.

So they came, says the legendary story, to the foot of the wild pass of Ruben; a spot fated to be dangerous to the Swedes, and since strewn with the frozen corpses of the hosts of Labarre and Zoega, who perished there. Their company filled the few cottages of the small hamlet on the Swedish side of the barrier; where they arrived early in the day. They were eager in their enquiries for a guide, being resolved to pass the hills ere night, lest tidings should reach the Norsemen of their approaching foes. But all their search proved fruitless. Many of the Swedes of the village had been over these mountains; but none were on the spot who possessed that firm confidence derived from certainty of knowledge, and from conscious intrepidity, which could alone make them secure or willing guides in an expedition of so much peril and importance. At last, old Sweyne Koping, the keeper of the little inn which was the Swede's head-quarters, shouted with the joy of him who has at once hit upon the happy solution of a difficulty.—

"By the bear!" cried he, "could none of you think of the only man in Jemtland fit for this enterprise: and he, here on the spot all the while? Where is Jerl Lidens?"

A hundred voices echoed the eager question, and the leaders were told, to their regret, that they must wait perforce, till the morrow, for the only man able or willing to guide them. Lidens had gone forth upon a journey, and would not return that day.

"Well," said Eric Von Dalin, the chief of the Swedish detachment, "there is no help for it. To-day we must depend upon the kind entertainment of our host; but beware, my brave men all, beware of deep horns of ale or mead. Remember," pointing to the rugged peaks glittering in the snow—"remember, that all who would sleep beyond those to-morrow, will need firm hands and true eyes. And, good Sweyne,"

(addressing the inn-keeper, who was the chief person of the hamlet,) "look well that no sound of our coming reach these Norse sluggards.—There may be some here, who for their country's safety, would cross the hills this night with warning."

"Thou art right, by Manhem's freedom!" cried the host, "here sits Alf Stavenger; he knows these hills better than his own hunting pouch, and would think little of carrying the news to his countrymen. I am sorry," he continued, turning to Alf, "verily I grieve to make an old friend a prisoner; but you must abide here in some keeping, till our men are well forward."

"I care not if I stay here all night forever," replied the Norseman.

Eric now looked for the first time upon the speaker, and confessed that he never beheld a finer looking man. In the prime of the beauty of northern youth, Alf Stavenger was remarkable for a cast of features bearing traces of a higher mind than can often be discerned in the cheerful lusty faces of his countrymen.

"Does the valley marksman speak thus?" said the host.

"Aye," answered the youth, "when you are thrust forth from the fire-side, you can but seek another roof. If your own land casts you out, you are fain to cling to the stranger—the enemy."

"Has Emlen's father been rough?" inquired Sweyne.

"Name him not!" replied the young peasant angrily.—"They have heaped refusal and insult upon me; let them look for their return. Ay, Skialm Harder may one day wish that I had wed his daughter—my name shall yet be fearfully known through Norway.—Swede, I will guide your troop this night over the Tydel. Trust me fully, and you shall be placed to-morrow beyond those white peaks."

"He will have a fearful passage first," said an old peasant, "there is no moon—now: and it will be pitch dark long ere you cross the Neroe."

"The night is to us as the noon-day," cried a spirited soldier: "for our crags we fear them not, were they as high as the blue heavens. Our life has been amongst rocks, and in our own land we are called the Sky-leapers!"

"I will trust the young Norseman," continued their chief: "wounded pride, and slighted love, may well make a man hate the land that has spurned him, were it his own a hundred times."

As the day was fast wearing over, small time was lost in preparation. Each man carried with him his fir-skates, to be used when, after climbing the rough ascent, they wound along those narrow and difficult parts which skirt the face of the cliffs, crossing the mountains. Their guide told them that he should lead them when it grew dark, by lighted torches, procured and used as he would afterwards show them.

During their slippery and rugged journey, Alf and his followers could not help alternately admiring the spirit, coolness, and activity shown by each party in scaling the dangerous rocks; and they felt insensibly drawn one to another, by that natural, though unuttered friendship, which binds together the brave and high-souled. Still few words were spoken between them, though many of the Swedes spoke Norse well, and Alf knew Swedish as thoroughly as his own tongue. On both sides were hosts of feelings which led them to commune with their own thoughts in silence.

After some hours of hard and successful climbing they halted, at

close of day, for a few moments, on the snowy summit of a ridge which they had just ascended, to fasten on their skates. They had now to traverse the long slippery defiles peculiar to Norway, where the path runs up on narrow ledges of rock, at an awful height, winding abruptly in and out along the rugged face of the hills. Here they formed in single file; and their guide taking the lead of the column, kindled by rapid friction, one of the pine branches, of which each had, by his orders, gathered in, abundance on their way.—He said, in a few energetic words, “that here must they tempt the fate of all who would conquer Norway—unless they chose to return: now were they really to win their proud name of the Sky-leapers.” He bade them move along rapidly and steadily; following close the light of his torch. Every man was to bear a blazing pine, kindled from his; and thus, each pressing close on the light before him, or the track would be lost in the abrupt turns and windings. He placed the coolest and most active in the rear, that they might pass lightly and skilfully over the snow, roughened by the track of their leaders; and keep the line of lights, which was their only hope of safety, compact and unsevered.

What a change from toilsome climbing, which had wearied the most elastic limbs, and tired the most enduring spirit. They flew over the narrow slippery paths, now in a long, straight arrowy course of fires, now lost, and then emerging, in the sharp turnings of the cliffs. The dangers of the Noroe, which make even the natives shudder, at the giddy narrow path and awful depths, were half unseen in the darkness, and all unfear'd by these brave men, who darted exultingly, like winged gods, through the keen bracing light breeze of the hills.

At every step the winding became more abrupt; and it seemed to his nearest follower, that even the guide looked anxious and afraid; when almost coming close to him at a turning, he saw, by the joining light of their torches, the countenance of Alf turned back towards the long line of flying snow with a troubled and sorrowful look. To encourage him, he cried in a bold and cheerful tone—“No fear! no danger! On, brave Stavenger! The Sky-leapers follow thee!”—“On!” shouted back the guide, with a cry that echoed through the whole band, and quickened their lightsome speed. Their torches now flew along in one straight, unbroken gleam of fire, till a wild death-scream arose, marking the spot where light after light dropped in the dark silence. The depth was so terrible that all sound of fall was unheard. But that cry reached the last of the sinking line, and their hearts died within them: there was no stopping their arrow-flight—no turning aside, without leaping in the sheer air.

Alf Stavenger shuddered at the death-leap of these brave men over the edge of the rock. His soul had been bound to them in their brief journeying together, and had they not come as his country's invaders, he would have loved them as brothers for their frank courage. But Alf was at heart a true son of Norway; it is true he had resolved to leave his father-land forever; still when he saw this band coming to lay waste the valleys which he knew to be undefended, his anger was in a moment forgotten, and all his hot Norse blood was stirred within him. He was detained, as we have seen, from crossing the hills to warn his countrymen; and he knew that when Jerl returned, he would be well able and willing to guide the Sweeds over the pass. “Ay,” thought he, while the waving

train followed his leading torch, "I told them that *here* they should earn their proud name of Sky-leapers!—that here those who warred with Norway should brave their fate! I said that Skialm Harder should wish he had given me his fair daughter—that my name should be known over my land for a deed of fear and wonder! I promised they should sleep to-night on *our* side of the hills! Now will I keep all that I have sworn! 'Tis pity for them too—so brave, so young, so unsuspecting; but two words have made my heart iron—Emlen and Norway!"

Alf well remembered one point, where a long straight path ended suddenly in a peak of rock, jutting far into the empty air. The road was continued round so sharp a re-entering angle, that much caution and nerve were needed even by one well aware of all the danger, to wheel rapidly and steadily round the face of the abrupt precipice, and avoid shooting straight over the ledge of rock. He fixed upon this spot for the death-leap; indeed, the Swedes never could have passed it in safety, without having been fully warned of the peril, and afterwards cautioned at its approach.

When he looked back—as he led the line rapidly to their unseen and dreadful fate, he shuddered to think on what a death the brave and light-hearted men who followed him were rushing. A word from the nearest follower roused him; he shouted to hasten their rapid flight, and darted boldly on throwing his leading torch far over the point where they should have taken the sudden turn. He had nearly fallen into the ruin of his followers; with the sounding speed of the flyers pressing hard upon his footsteps, all his nerve was barely sufficient, after flinging his blazing pine straight forward as a lure, to check his own course, and bear him round the point which severed life from death.

His speed was slackened by turning; and for a second, he felt giddy and senseless; every nerve had been strung for the decisive moment, and his brain reeled with the struggle. He awakened to consciousness, to see the last of the line of torches dart into the empty space—then sink forever; and he listend, with a cold thrill of awe and terror to the echoes of the death-scream of the last of the Sky-leapers!

WEDDING IN KENTUCKY.

BY NATT. PHILLIPS.

MR. EDITOR,—I s'pose you think we have no fun in these diggins; you are sucked in; and to show that you are, I will just give you a description of a Deer Chase, which beats them at the White Sulphur Springs to death, in my opinion. Our great hunting place is between the two Kentuckys, about two miles above the little town of Carrolton, in the forks of Kentucky and Ohio rivers.

As myself and my old friend T. was on our way to the hunting ground, with our dogs and guns, and in about a mile of our place of staing all night, we was met by a horseman, coming down at full speed. "What! hellow, Jim! are you drunk—riding for the Doctor, or what is putting

you in such a splutter?" "Nothing more than a wedding," says Jim; "old John Snooks's daughter Bets is married to-day, and the greatest frolic will be there to-night that ever was there or any where else, or I am mistaken. There is about one hundred, with, I think about sixty gals; and if I can git a fiddler, the way you will sorter hear it thunder towards dark will be curious. Turn and go up you and T. and I will go on after my man." So off he puts, leaving T. and myself consulting; says T. "We had better not go up there—they are a hell of a set, and they way there will be all sorts of fighting scrapes, and nocking one another in the eyes before morning, will be a caution!" "I am determined to go, T.," said I, and we will manedge to get some place to put our dogs up in, and we will give them one round to-night to make them recollect us. I am sure we will be well received, for I can give them 'Possum up the gum stump,' and 'Luther Britches,' at a rate that will astonish them." "Well, if you will go, go it," says T., and turning our course, steared our horses' heads plump for the wedding, which was about two miles.

When we came up to the house, and was about dismounting, the croud outside being mery with liquor, gave us three cheers, noing me a sort of gouger on the fiddle. Well, we got down; the old man coming up and bidding us welcome in a very friendly manner, saying we ware very welcome to any of his out-houses to shet our dogs in (eight in number,) as good as ever struck the trale of fox or deer, which we jammed into the smoke-house quicker than shooting. By this time there was several young men of my acquaintance come up, wishing me to go and be introduced to the gals. The house, a duble cabbin, two large rooms, filled to the overflowing of about thirty outside, comfourtably drinking and enjoying themselves by a large log fire. Well, as I drew near the house, with one of the young men by my side, a kind of master of ceremonies, I began to pluck up my shirt collar, and set my hat kiner on one side, to make a grand entray, and attract as much attention as possible. As we steped about three paces into the house, he lets go my arm, and steped to the center of the room, the gals and boys being strung three duble all round on benches an chairs. Says he, "Gentlemen and ladys, Mr. Natt Phillipps, of the Big Bottom." I straitened as erect as possible, and made a low bow with a considerable flourish of my hand above the head, to the ladies on the benches to the right. Then turning on my right heel with a majestic movement, and draging my left heel agreeable to ciencie into the hollow of my right foot, I unfortunately caught her in a crack between two punchions, which brought me to the left about flat of my back, slap across the lap of a gal and her beau, nocking the combs out of her head, and bursting the waist ribbons and apron strings to fitts, to my great confusion; for on getting up as speedily as possible, I recognised in the lady the beautiful girl that I had got acquainted with at the barbycue down on Little Greecy. And her beau, which I didn't like from first sight, jumps up to pick up her combs; he was a big six footer, long arms, stoop-shouldered, and red-headed, and seemed, from his looks, nearly in the act of mounting me as I began my apology to the lady. By this time all eyes was on me, and every thing as hush as death, which added very much to my confusion. But I began: "Madam, you must excuse this unfortunate accident; I am sure I don't know how to begin to apologise." I stamerd very much, and came to nearly a stand still, as my friend who introduced me steps up saying,

"Dam it, Nat, no excuse is wanting—the lady nows it was purely accidental. Come, take a chair, set down, and enjoy yourself." So taking me by the arm, led me across the room to a seat, whilst the girl left hers to go into the next room to adjust her apron strings and ribbons, to the great annoyance of Redhead, who got up, walked the room with his white coaded pantaloons and black coat, fitting beautifully, as he thought, but with furles actually hanging from his seat nearly down to the bend of the nea, and occasionally saying in low curses to himself, "Damed drunken pup—ought to be kicked," and so on. I never said anything, but swelled a little about the neck, and thinks I, "old fellow, if you aint mity careful I will rampoosel you afore morning;" still having some doubts, for he was an ugly looking child. Well, being seated, I presently discovered that the old man had provided beautifully for his company in the eating line, for in a large old-fashioned chimney, about seven feet across, sought a tollerable sised salt biler in one corner, that had bin made full of backbone and chicken pie to an overflowing, all of which had bin taken out, excepting about six gallons of rich gravy, with here and there a fragment of backbone, or chicken leg, sticken up through it.

By this time it had become dark, and the gals being very anxious for a dance, crowded around me six or seven of them with a fidle, the pretty gal in the croud insisting on me plaing them a few tunes. I smiled on all the gals in as winning a way as possible, and taking hold of the fiddle, throughed myself back in my chair in as buckish a manner as possible, sorter cross-legged, and commenced thumping and rumbling over the strings to get her in order for operating, when all at once, I heard my old friend T. out at the log-fire burst out in one of his greatest glees of singing to the boys the song of "the warm fireside and a Gorum," as good a sole as ever lived, except sometimes would get a little too much snapped. Well, there being two rooms, and both full, it was pruposed that I should move to the partition door, so that all could hear the music, and two sets dance at the same time. They soon fixed for an eight in each room, Redhed and the pretty gal heading the set in the room next to me, and standing very close, made my flesh sorter creep as I looked on. But I struck up "Old Luther Britches," accompanied by a lad with a big clivice, and a negro with an old coffee-pot, one-third full of gravel, and the way we plade was curious, and the way they danced was a little after the old-fashioned of cast off and right and left. And every time that gal came up on her side facing me, she gave me a look that made me eatch right under the ear, and feel so comical, that I would miss a hole turn of the tune; but fortunately, the negro caught it up on the coffee-pot, rattled the gravel, and plaid it over his hed with velosity, he, nor the clivice, never missing the first note. Well, the reel being out, in popps Jim with his man, the fidler, which he had engaged for five dollars the night, provided he did not get drunk. A rusty-looking old chap, with two large whiskers, and his right eye smashed out, carrying under his arm a piller-case which contained his fidle; and after taking two large pools at a big stone jug which set on a small table in one corner, he quietly seated himself, and commenced pulling the instrument out of its case, whilst we made a rush at the floor with our partners, I making a fling for the pretty gal's hand, but could not come it, Redhead being too smart. I engaged her for the next set. Off goes the music, and at it we went with a rattling pace, changing the dance a little from

right and left to hands round, with three grand flourishes till each party comes round to the place they first occupide, lets go hands, and flies back a little from each other, and the Heavens but the old house roars like thunder all out-dooing there best, some going it on gigg time, whilst others was tareing ane beating the tune all to smash after the old fidler, as plain as a pair of drumsticks would have done it. I cannot say that claret was taped on all sides; but I say the Perspiration ran freely. This is the Dance for curing the Dyspepsy, and if you have any friend that is groing meaguer and thin with a Towne life, just send him out here the tenth of next September, and before the hunting and dancing season is over, I will have him as sound as a rock. Let him bring loose clothing if he wants to figuer well with the galls, for the different steps and positions he will have to throw himself into in this Dance would split your tight-laced and stayed Dandy from the Locomotives to his cranium, every Popp.

But I am straing from the dance; every thing ends, so did it. The gals were all led to there seats, while some toddy was making to go round, and the old fidler whetting his whissell from the big jug, making ready for the next reel, I got alongside the pretty gall, and dang it—what was the matter, I don't now—I couldn't say a word. Had she put a spell on me, or what? I could talk to any other gall living—never had bin done up before—but now I couldn't come it. I was making a desperate rally, as Redhead walked up and interrupted me by making an offer for her hand the next reel; she thanked him, and scid that she was 'engaged,' and as he walked off looking very savarigious, she says, "What a dispisable crature that is; you must be on your gard, for I have heard him make some ugly threats to-night, and fighting is his trade." I felt mity good for the anxiety she shoud about me, but let her now that I was one of them cind of children myself when called on, and the sines seemed to show a cuf or two between us afore morning. Well, the music beginning to tune up coused a general scuffle to the floor for places; myself and partner headed the dance, when to my surprise, Redhead loozening his place below, came up with his partner to crowd down the head; I gave way a little, determined not to have a furse with the galls on the floor, and noing the couple below would have to go of, I determined to try him the minuit it was over. Well, we capered and ranted around mityly, got through, and seated our partners, and just as Readhead was passing between me and the chimney, I rushed at him, made a motion to strike, but actually run into the pit of his stomach with my head, running him back into the chimney with great force, striking the back wall, and nocking him down, with the hole of his hinder parts into the cittle of grease, squirting her out on each side into the fire, cindling it up into a perfect blaze all round us; it was hot dooings, and I began to think about getting away and leaving him and the fire to fight it out. But he was to smart, he held fast to me, and I pulled him out ni on to as fast as I shoved him in. In a moment we was both on our feet in the middle of the floor; both drew back and striking at the same time, sliped, and fell to the floor by the side of each other; as I drew my feet and hands under me to gather up quick, I caught hold of something with my right hand, which happened to be three goints of a backbone, draged out of the pott by the seat of his britches. I raised and threw it with a vengeance right at his profile, taking him above the

right eye, cutting a chanel across his forehead like he had bin sawed with a hand-saw. The bone splitting at each goint flew into the clapboards, and made the old loft rattle like a hale storm. I drew back to strike, but sein he was perfectly blind, by the grease from the bone flung into his eyes, I determined on putting him out of the house; so I run in under him, moved him towards the door, caught the hipp lock, and threw him out heels over head slapp across the rim of a big spining wheel, which had bin set out to clear the house for dancing, braking her down, and comeing with a crash on to the bench, and then to the ground. I threw a hand into each cheak of the door, and drew my right foot back a little, to play the Zeba on him, for I expected he would come roaring like a steam-car; but the dooings in the house, and the old wheel banch, had taken the rare and charge pretty considerably out of him,—but he was beginning to crall up as the old man of the house stept out under my arm, with a hat in one hand and candle in the other. Says he, "Young man, you was invited to my house in a friendly manner, you have abused that friendship by trying to raise a furse ever since you came here; here is your hat, go home, and never come here again untill you learn how to behave yourself; good night," and walks in again. Not so Redhead, he turned and gave me an ugly look, as much as to say, "I am not done with you yet," and walked of. Good by, if you are gene, thinks I, but never said a word, and turning into the room was complimented by the whole party for what I had done. We cupled of and seated ourselves around, and was getting mity happy, but, as some fellow said, "Tru love never did run smoothe" or "happiness last long," we was interrupted by a devil of a furse being cicked up out at the Log fire; two or three of us running out, who should it be but my old friend T., with the hole company forming a ring around him, cursing, foaming, and daming every boddy and every thing to pieces he could think of. I new it was not worth while to try to passify him until he cooled of a little. I began to look about for the cause of his madness, and presently saw a pile of rales on fire, and that the end of his coat-tail and seat of his britches was burnt of, and hearing two chaps out to one side talking and splitting their sides nearly in laughter. Says one, "Dam my sole, John, if the old chap had laid a little longer if we hadn't niguerd him of plump at the small of the back." "Yes," says the other, lafing fit to kill himself, "it has sheared his coat-tail slick, and run mity hard down into the seat of his britches," then laffing heartily, which I did not like, and as I was walking up out gumps a drunken fellow that had bin wakened by the furse, and came runing up to the crowd squeeling like Stalion, says he, "Gentlemen, here is old Medock, dam it, bring up your fine stock, hoo the hell is this speaking on the Land Bill here?" "Medoc, you and the Land Bill be damed," said T., "hoo the hell are you come in here, I can lick you quicker than you can say Jack Ralisan." "Go it, old horse," says the fellow in a perfect good umer. By this time I had walked up to him, and determined to make the best of it I could; said I, "T., it was all an accident, the boys say the sparks from the log-fire caught into the rale pile you was lying on." "They are a damed set of liars, didn't I see two of them bloing the blaze up under me as I gumped up all on fire, and if it hadent bin for that fellow throughing the bucket of water on me, they'd have burnt me up alive; they are a set of devils, murdererers, savages,"—he was going on worse than ever when I caught him by the

arm, gave him a shake, and begged him to be still; some one handing me his big coat, which I pulled on him as quick as possible covering all the breach the fire had made into his lower regions, and by persuasion and half pulling I managed to get him into the house. By this time the women of the house began to raise fires under there cooking apparatuses for an early breakfast, which came on of the most substantial fare about an hour by the sun.

[Spirit of the Times.]

[TO BE CONTINUED.]

ORIENTAL FIELD SPORTS—TIGER HUNT.

ON arriving at the ground, Ayapah was found still sitting patiently at his post; and from him the welcome intelligence was obtained that the tiger had not yet moved.

The *shikaries*, who appeared perfectly to understand their business, bustled about with great activity, and, in a wonderfully short space of time, the toils were pitched, and the tiger's lair so effectually surrounded that it appeared impossible for him to escape. But how was this done? some of our readers may ask—we must try to explain.

The toils are huge nets, made in the same manner as those used for fishing, only that they are formed of stronger cord, nearly as thick as the little finger, and with meshes large enough to admit a man's head. The ground having been first carefully examined, poles, about ten feet long, pointed at one end, and having a notch at the top, are driven into the ground at regular intervals, across every outlet by which it appears possible for an animal to escape. Upon these the toils, or nets, are suspended, like a curtain, with the upper rope resting in the notch on the top of the pole. This is so slightly fixed, that the moment a large animal rushes against the net, it becomes disengaged, the net falls over the animal, and in his struggles to escape he becomes so entangled in the meshes, that the hunters, who lie in ambush at a short distance, and, who in general are only armed with spears, have time to run in and despatch him before he can extricate himself.

Every thing being arranged, a council of war was held, to decide finally, whether the bold experiment of attacking the tiger with spears should be attempted. The Doctor remonstrated; but the *éclat* of such an adventure was a temptation not to be resisted. It was voted decidedly unsportsmanlike to shoot a tiger after he had been netted—it was taking ungentlemanlike advantage of him. In short, the Doctor's objections were over-ruled, and the measure carried, with great applause from Charles, and a grim smile of satisfaction on the part of Ayapah.

Two strong, broad-bladed, hunting-spears, having been provided, Mansfield and Charles laid aside their rifles, and, armed with these more primitive weapons, posted themselves at some distance from each other, so as to command the only two outlets from the ravine, by which it appeared probable that the tiger would attempt to escape. The more prudent Doctor, having no idea of risking his valuable life in any such wild adventure, climbed, with the assistance of Ayapah, into a neighboring tree, and lighting his cheroot, nestled himself among the branches, to witness the coming strife in safety and comfort.

For some time after they had taken their positions, all remained quiet—not a leaf stirred—no sound was heard, save the dull, hoarse, monotonous roar of the cataract, which, mellowed by the intervening woods, only served to increase the feeling of lifeless solitude, imparted by the perfect stillness of all else around, to the silent lairs of the watchful sportsmen.

The Doctor's patience, and his cheroot, were well nigh exhausted. Charles, in spite of himself, was beginning to feel that peculiar, disagreeable, cold, creeping, nervous sensation, which is not fear, but which will occasionally steal over the stoutest heart in such a situation; it is a feeling which any of my readers who have happened to lead a forlorn hope, or have stood upon a frigate's deck, during the few minutes of portentous silence which precede the first broadside, may perhaps remember. Even Mansfield was beginning to handle his spear in a fidgety manner, and to think, with peculiar affection, of his trusty rifle, when a distant shout came swelling on the breeze, and all ideas, save those of victory, vanished.

Nearer, and nearer came that cheering sound. The air was filled with wild, discordant cries—the rocky sides of the ravine echoed to the clatter of a hundred *tomtoms*. Now is heard the rushing sound of the lively rockets, as they dart, like hissing snakes, among the tangled bushes—and now the angry voice of the hunted tiger, as he starts indignant from his lair, and roars defiance to his foes. Every nerve was braced, and the blood rushed like lightning through the veins of the excited sportsmen, as that sound reached their ears. The shouting of the beaters were redoubled—a shower of rockets swept the ravine like a storm of fire—and the tiger, rushing at once from his concealment, dashed, with tremendous bounds, towards the pass which Charles commanded. He had approached within ten yards of the nets, when he suddenly stopped, having probably observed the impediment, and stood in an attitude of indecision, lashing his tail from side to side, and uttering a low savage growl. Charles, in conformity with the directions he had received from Mansfield, immediately stepped from his concealment, and, bringing his spear down to the charging position, advanced steadily towards the frail barrier, which formed his only defence against his formidable antagonist. It was a moment of fearful interest; and the Doctor, who from his perch commanded a full view of the scene, felt the blood curdling in his veins. But Charles, although he felt a peculiar tingling of the nerves, and a slight palpitation of the heart, bore himself gallantly.

No sooner did the tiger perceive his intended victim than his whole appearance was altered. His green eyes glared savagely—his ears were laid flat upon his neck—the hair upon his back stood erect—and, crouching close to the ground, he crept swiftly towards the nets. Having got sufficiently near, he uttered a tremendous roar, and springing forward with a lashing bound, threw himself against the net with a force that threatened to carry every thing before it. But the tough cordage yielded to the shock without sustaining any injury—the upper rope became disengaged—the net fell together in a heap—and the enraged monster was instantly enveloped in a complicated mass of net work, from which, in spite of his frantic efforts, he found it impossible to disengage himself. So furious was the onset of the tiger, and so apparently frail the defence opposed to it, that Charles had not sufficient command of nerve to stand his ground; he made an involuntary spring backward, stumbled and fell.

The Doctor, seeing the desperate rush of the tiger, accompanied by a roar that made his heart sink within him, and perceiving through a cloud of dust, that the net was, apparently, demolished, and his young friend down, immediately jumped to the conclusion that he must be in the tiger's jaws. His first impulse was to shout to Mansfield for help, which he did right lustily; his next to slide from his perch with a reckless haste that considerably injured the appearance of his nether garments; to snatch up his fusee, and hurry to the rescue, invoking maledictions on the man who first invented the desperate amusement of spearing tigers on foot.

But, ere he could reach the scene of action, Charles had recovered his footing, picked up his spear, and driven it deep into the chest of the tiger. The previous struggles of the powerful animal were those of a cat, compared to the frantic efforts which he now made to reach his pigmy antagonist. His eyes glowed like live coals—foam, mingled with blood, flew in spray from his distended jaws—he roared—he gnashed his teeth—he tore up the earth—he twisted and turned with the agility of a wild cat. By dint of gnawing, he had so far succeeded in destroying the net, that his head protruded; but still the complicated folds entangled his limbs and paralyzed his efforts. Charles, although tremendously knocked about, clung manfully to his weapon, and exerted his utmost strength to force it through the monster's body and pin him to the ground. At length the tiger succeeded in grasping the shaft with his powerful jaws, and, by one vigorous shake, snapped the tough ash-pole as if it had been a reed. Charles, although partially disarmed, still retained sufficient courage and presence of mind to make the best use of what remained of his weapon, and so gain time till assistance arrived; he had never quitted his hold of the spear-shaft, and, with this, he showered such a volley of blows upon the tiger's head, as partially to stupify him, and thereby impede his efforts to disengage himself.

The Doctor, whose courage had failed him, the moment he perceived Charles on foot again, had all this time remained at a respectful distance, dancing about like a maniac, brandishing "*Mons. Meg.*," and shouting to Charles "to haud out o' the gate till he got a rattle at the brute wi' the grit shot." But Charles, who expected no aid from any one but Mansfield, was much too busily engaged in preventing the tiger from getting clear of the nets, to pay any attention to his exclamations, and continued to thrash away with his heavy ash-pole like a young Hercules. The tiger's efforts, however, instead of diminishing, only seemed to increase. He gnawed, and tore, and plunged, with the fury of desperation. Mesh after mesh of the strong net-work gradually gave away. He had already succeeded in liberating one fore-paw as well as his head, and it was but too evident that a few more vigorous struggles must set him free. At this critical moment, Mansfield came bounding over the rocks, and, uttering a hearty cheer of encouragement to Charles, drove his spear deep into the body of the tiger. Instead of attempting to hold the animal down, as Charles had done, he instantly withdrew the weapon, and repeated his thrusts with such strength and rapidity, that in spite of a desperate resistance on the part of the tiger, he was speedily covered with wounds, and bleeding at every pore. The rapid loss of blood had perceptibly diminished his strength—his shrill roar was changed to a hoarse bubbling growl—the victory was all but gained—when, with one

tremendous blow of his gigantic fore-paw, he snapped the shaft of the spear in two, leaving the iron head sticking in his own body, and bringing down the butt-end of the shaft with such violence upon Mansfield's head, that he fell backwards, stunned and insensible.

The case was now indeed a desperate one. Poor Charles, although his courage failed not, was so much exhausted by his previous exertions, that his blows fell harmless as those of a child, and it was evident that he could not much longer maintain the unequal contest. Most heartily did he now wish for his trusty rifle, and loudly did he call upon the Doctor for assistance.

The tiger, weakened though he was by loss of blood, had by this time so far succeeded in destroying the net, that his head and shoulders were at liberty. One struggle more, and he was free, to wreak a fearful vengeance on his foes—to quench his burning thirst in their blood. A hellish fire shot from his eyes, and his whiskered lips curied into a grin of ineffable malignity as he gathered himself together for a decisive spring. It was madness to oppose him longer. Charles, upbraiding the Doctor for a cold-blooded poltroon, turned to fly; but, in doing so, he stumbled over his prostrate companion, and fell heavily. "Doctor! Doctor! where is your manhood? Will you allow your gallant young companion to be miserably mangled before your eyes?"—No!—The latent spark of fire which lurked in the blood of his Celtic ancestor, is at length roused. He utters a war-cry; he rushes boldly between the infuriated tiger and his prostrate victims—*Mons Meg* pours forth her deadly contents—and the monster, in the very act of springing, rolls dead at his feet, with two ounces of "grit shot" in his brain. Hurrah!!

"What think ye o' the grit shot now, captain?" exclaimed the Doctor, pointing with an air of triumph to the dead tiger, as soon as Mansfield had sufficiently recovered from the stunning effects of the blow, to understand how narrowly he had escaped destruction. "There are waur things than a fusee and grit shot, at a pinch, I'm thinkin'. That plan o' yours, o' spearin' tigers, is a very well, for once in a way; but, by my troth, lads, ye had better no *make a practice o' it*."

This was a sentiment in which the two young sportsmen perfectly concurred. They had got a lesson which made them heartily repent of their folly. And, after returning thanks for their providential escape, and bestowing abundant praise on the Doctor for his timely aid, they both vowed, solemnly, never more to engage in so foolhardy an adventure.

Great were the rejoicings that night in the sacred village, and many were the good jokes cracked by the worthy Doctor over a bottle of *glenlivat*, which he insisted on draining in honor of his victory. We have heard it hinted, that towards the "sma' hours," the Doctor was seen pursuing rather a tortuous course towards his bed-room, under the guidance of his friend Heels; but this we believe to be a calumny. At all events, it was the proudest day in the worthy Doctor's life; and, to this hour, his favorite story after dinner is, "The daft-like tiger-hunt, wi' thae twa wild *Birkies*, at the Falls of the Cauvery." KOONDAH.

[*New Monthly Magazine*.]

THE HEIRESS.

A SPRIGHTLY rosy cheeked flaxen-haired little girl, used to sit, on the pleasant evenings of June, on the marble steps opposite my lodgings, when I lived in Philadelphia, and sing over a hundred little sonnets, and tell over as many tales, in a sweet voice, and with an air of delightful simplicity, that charmed me many a time. She was then an orphan child, and commonly reported to be rich—often and often, I sat after a day of toil and vexation, and listened to her innocent voice, breathing forth the notes of peace and happiness, which flowed cheerfully from a light heart, and felt a portion of that tranquillity steal over my bosom. Such was Eliza Huntley, when I first knew her.

Several years had elapsed, during which time I was absent from the city, when, walking along one of the most fashionable squares, I saw an elegant female figure step into a carriage, followed by a gentleman and two pretty children. I did not immediately recognize her face; but my friend, who was by my side, pulled my elbow, do you not remember little Eliza, who used to sing for us, when we lived together in Walnut-street. I did remember, it was herself.

She used to be fond, said he, of treating her little circle of friends with romances—and at last she acted out a neat romance herself. She came out into the gay circle of life, under the auspices of her guardian. It was said by some, she was rich—very rich—but the amount of wealth did not appear to be a matter of publicity; however the current, and as we generally believed, well-founded report, was sufficient to draw around her many admirers—and among the number not a few serious courtiers.

She did not wait long, before a young gentleman, on whom she had looked with a somewhat partial eye, because he was the gayest and handsomest of her lovers, emboldened by her partiality, made her an offer. Probably she blushed and her heart fluttered a little, but they were sitting in a moonlight parlour, and as her embarrassment was more than half concealed, she soon recovered, and as a waggish humor happened to have the ascendant, she put on a serious face, told him she was honored by his preference, but that there was one matter which should be understood before, by giving him a reply, she bound him to his promise. 'Perhaps you may think me wealthy; I would not for the world have you labor under mistake upon that point, I am worth eighteen hundred dollars.'

She was proceeding, but the gentleman startled as if electrified. 'Eighteen hundred dollars!' he repeated in a manner that betrayed the utmost surprise; "yes, ma'am," said he, awkwardly, 'I did understand you were worth a great deal more—but—'

No, sir, she replied, no excuses or apologies; think about what I have told you; you are embarrassed now; answer me another time; and rising, she bade him good night.

She just escaped a trap; he went next day to her guardian to inquire more particularly into her affairs, and receiving the same answer, he dropped his suit at once.

The next serious proposal followed soon after, and this too came from one who succeeded to a large portion of her esteem, but applying the same crucible to the love he offered her, she found a like result. He too, left her, and she rejoiced in another fortunate escape.

She sometime after, became acquainted with a young gentleman of slender fortune, in whose approaches, she thought she discovered more of the timid diffidence of love, than she had witnessed before. She did not check his hopes, and in process of time, he too made her an offer. But when she spoke of her fortune, he begged her to be silent; it is to virtue, worth and beauty, said he, that I pay my court, not to fortune. In you I shall obtain what is worth more than gold. She was most agreeably disappointed. They were married, and the union was solemnized; she made him master of her fortune with herself. I am indeed worth eighteen hundred dollars, said she to him, but I never said how much more; and I hope never to enjoy more pleasure than I feel this moment, when I tell you my fortune is one hundred and eighty thousand.

It is actually so, but still her husband often tells her that in her he possesses a far nobler fortune.

Trenton Emporium.

MAXIMS FOR MARRIED LADIES.

THE following maxims, if pursued, will not only make the men in love with marriage, but cause them to be good husbands:—The first is to be good yourselves. To avoid all thoughts of managing a husband. Never try to deceive or impose upon his understanding, nor give him uneasiness, but treat him with affection, sincerity, and respect. Remember that husbands at best are only men, subject like yourselves, to error and frailty. Be not too sanguine, then before marriage, or promise yourselves happiness without alloy. Should you discover any thing in his humour or behaviour not altogether what you expected or wish, pass it over, smoothe your own temper, and try to mend his attention, cheerfulness, and good-nature. Never reproach him with misfortunes, which are the accidents and infirmities of human life; a burden which each engaged to assist the other in supporting, and to which both parties are equally exposed: but, instead of murmuring, and reflections, divide the sorrow between you; make the best of it, and it will be easier to both. It is the innate office of the softer sex to soothe the troubles of the other. Resolve every morning to be cheerful that day, and should any thing occur to break your resolution suffer it not to put you out of temper with your husband. Dispute not with him, be the occasion what it may, but rather deny yourself the trifling satisfaction of having your own will, or gaining the better of an argument, than risk a quarrel, or create a heartburning, which it is impossible to foresee the end of. Implicit submission in a man to his wife is ever disgraceful to both; but implicit submission in a wife to the will of her husband is what she promised at the altar; what the good will revere her for, and what is, in fact, the greatest honor she can receive. Be assured, a woman's power, as well as her happiness, has no other foundation than her husband's esteem and love, which it is her interest, by all possible means, to preserve and increase. Study, therefore, his temper, and command your own. Enjoy with him his satisfaction, share and soothe his cares, and with the utmost assiduity conceal his infirmities. If you value your own and your

husband's ease, let your expenses and desires be ever within the reach of his circumstances: for if poverty should follow—you must share the evil. Be very careful never to give him any cause of jealousy. Let not many days pass without a serious examination into your conduct as a wife—and if, on recollection, you find yourself guilty of any foibles or omissions, the best atonement is to be more careful in future.

[*Waldie's Library.*

LITERARY NOTICES.

THE HOUSE BOOK, OR A MANUAL OF DOMESTIC ECONOMY: By Miss LESLIE; Author of "A Complete System of Cookery," "Seventy-five Receipts," &c.

The above work has been recently issued from the press of Carey & Hart, Philadelphia. We have overlooked its pages, and recommend it to all young housekeepers, and all young ladies, who are about to become so. They will find in it many valuable hints, and several useful receipts. It contains directions for "Laundry work—Removing stains—Lights and fires—Cleaning furniture—Kitchen affairs—Waiting on company—Carving—House cleaning—Making up Linen—Dress-making," &c. &c. &c. &c. There is indeed much information to be gleaned from its pages, but we are sorry to add, there is also much, that seems to be put in, more for the purpose of swelling the size of the work, than adding to its utility. Notwithstanding, we again recommend it to our fair friends. To be had of J. P. BEILE, King-street.

THE ORCHARD AND FRUIT GARDEN, INCLUDING THE FORCING PIT: By CHARLES MCINTOSH, F. L. S. Author of the *Green House*. London, W. S. ORR.

This is one of the latest works on the subjects of the Orchard and Fruit Garden. On overlooking it, we find numerous extracts from the latest and most approved authors, combined with the experience of the author. The directions for cultivating fruit trees and vines, are ample, including all that appears requisite to be known relative to the propagation, culture, harvesting and keeping of those which require it; also, their diseases and remedies. There are 18 beautifully colored plates of fruit, and descriptive catalogues of the best varieties of each, with their *synonymes*, their habit, and time of ripening. To be had of J. P. BEILE, King-street.

AGRICULTURAL ITEMS.

Beath's Gin for Sea Island Cotton.—This Gin, of which we published a notice some time since, appears to have given considerable satisfaction in Georgia, where it has been tested. It is said to possess many advantages over all previous inventions. "The first advantage is the clean manner in which the cotton comes from the gin, being perfectly prepared for packing. 2d. The possibility of fire, or of heating the cotton is entirely obviated. 3d. The manufacturers who have examined cotton ginned by this machine, state that it is worth ten per cent. more than that ginned in the ordinary way. 4th. This gin operates in all weather *without mashing the seed at all*; nor is it necessary that cotton should be sunned. 5th. The machine is constructed with metal rollers, and will require no repairs after once in operation, and will run from 4 to 5 years. It can be used by steam or horse power—one horse can turn two gins, and one hand attend to them with ease. It now cleans 15 lbs. in an hour, and it is thought with slight alterations it can be made to clean 20 lbs. in the same time." The recommendations are signed by several planters, with some of whom we have the pleasure of being acquainted. Mr. J. Hamilton Couper, observes, "I have pleasure in saying that it obviates many of the most important defects of those hitherto in use; and that it promises to prove as useful to the community, as it is creditable to the inventor." In another recommendation, signed by six gentlemen, it is stated that "they have seen it clean cotton which had not been sunned, without crushing the seed or injuring the staple. The cotton, if previously well assorted, is perfectly prepared for the bag as it comes from the Gin."—From the handsome appearance of the cotton, we concur with the opinion of Manufacturers that "Cotton ginned by this machine is worth more than that ginned in the ordinary way," and it gives us pleasure in recommending it to the notice of Sea Island planters."

Persons desirous of further information, can receive it by addressing I. C. Plant, of Brunswick Georgia.

Competition in the Culture of Cotton.—The British Government some time since, sent out an agent to this country, to ascertain the modes of cultivating cotton, the improvements made, and the machinery necessary to prepare it for market. Capt. Baylee (the agent) has entered into arrangements with eight young gentlemen of Mississippi and one from Louisiana, who are practically acquainted with the culture of cotton, to emigrate to India, for the purpose of testing the practicability of competing with the United States in the growth of this staple. "They carry with them nine gin stands, and models of gin houses, running gear and press. They are engaged at a salary of twelve hundred pounds per annum, with all expenses paid, and an additional annuity in proportion to their success promised them. Cotton is now

cultivated in India as it was formerly with us before the invention of the gin, and improvement in its culture. Native laborers can be had at \$2 per month. If therefore the soil and climate prove favorable a serious competition may take place between us. They will however find serious obstacles to overcome, in the indolent habits of the inhabitants and others, which we have neither the time or room now to discuss.

Rotation of Crops in Gardening.—A rotation of crops should be observed in garden as well as field culture. As a general rule, tap-rooted crops should succeed those of spreading roots; those with large and luxuriant leaves should succeed those of less size; those requiring much tillage should be succeeded by those needing but little culture. Deficiency in practical and scientific information relative to the proper succession of crops, renders it advisable to sow red clover on alternate portions of the garden, even if it is ploughed or spaded in the same season. The sowing may be at the last hoeing of some crops.—*Rural Library.*

Soaking Seeds.—Nearly all kinds of seeds will vegetate sooner and more freely, if well soaked before sowing: particularly if the seed be of a hard dry nature, or the weather at all dry. The frequent complaints that are made of the failure of Mangel Wortzel and Sugar Beet seeds, usually arise from a neglect of this preparation. The most extensive and successful cultivators of these roots, always soak the seeds three or four days before sowing.

New way of Raising Beets.—A writer in the Farmer's Cabinet says, that the best crop of beets that he has ever raised, was in alternate rows with corn; the corn was a full crop, and he obtained 300 bushels of beets to the acre besides. The shade of the corn seemed to be useful in dry weather, as the beets with the corn did better than others in an open patch along side. This was practised in Pennsylvania, where it may be more successful than in colder climates; but we would suggest to farmers who have a warm dry soil, an experiment on a small scale.

Churning Butter.—"I wish to inform my sister butter makers, of the means I used, which so successfully removed the difficulty. I churned perhaps three hours, to no purpose, and then tried to think of something that I had read in the Indiana Farmer, or some other periodical. I could not remember precisely, but I recollect the reason stated, was the cream being too sour. I then thought of soda, (pearlash I presume would do as well) and dissolved a large tea-spoonful in a pint of warm water, and as I poured it in, churning at the same time, it changed in a moment, and gradually formed into a beautiful solid lump of sweet butter."

MISCELLANEOUS ITEMS.

Bonaparte's Burial Place.—The solitude of Napoleon, in his exile and his tomb, has thrown another kind of spell over a brilliant memory. Alexander did not die in sight of Greece; he disappeared amid the pomp of distant Babylon. Bonaparte did not close his eyes in the presence of France, he passed away in the gorgeous horizon of the torrid zone. The man, who has shown himself in such powerful reality, vanished like a dream; his life, which belonged to history, co-operated in the poetry of his death. He now sleeps for ever, like a hermit apart, beneath a willow, in a narrow valley, surrounded by steep rocks, at the extremity of a lonely path. The depth of the silence, which presses upon him, can only be compared to the vastness of that tumult which had surrounded him. Nations are absent; their throng has retired. The bird of the tropics, harnessed to the car of the sun, as Buffon magnificently expresses it, speeding his flight downwards from the planet of light, rests alone, for a moment, over the ashes, the weight of which has shaken the equilibrium of the globe.

Bonaparte crossed the ocean, to repair to his final exile, regardless of that beautiful sky which delighted Columbus, Vasco de Gama, and Camoens. Stretched upon the ship's stern, he perceived not that unknown constellations were sparkling over his head. His powerful glance, for the first time, encountered their rays. What to him were stars which he had never seen from his bivouacs, and which had never shone over his empire? Nevertheless not one of them had failed to fulfil its destiny; one half of the firmament spread its light over his cradle; the other half was reserved to illumine his tomb.

Chateaubriand.

Private Fortunes of some of the Great Personages of Ancient Times.—Crœsus possessed in landed property a fortune equal to £1,700,000, besides a large sum of money, slaves, and furniture, which amounted to an equal sum; he used to say that a citizen who had not a fortune sufficient to support an army, or a legion, did not deserve the title of a rich man. The philosopher Seneca had a fortune of £2,500,000. Lentulus, the soothsayer, had £3,500,000. Tiberius, at his death, left £23,625,000, which Caligula spent in less than twelve months. Vespasian, on ascending the throne, estimated all the expenses of the State at £3,500,000. The debts of Milan amounted to £600,000. Cæsar, before he entered upon any office, owed £2,995,000; he purchased the friendship of Curoi for £500,000, and that of Lucius Paulus for £300,000. At the time of the assassination of Julius Cæsar, Anthony was in debt to the amount of £300,000; he owed this sum in the Ides of March, and it was paid before the Kalends of April; he squandered £147,000,000 of the public treasures. Apicus expended in debauchery £500,000; and finding on examination of the state of his affairs, that he had no more than £80,000 left, he poisoned

himself, because he considered that sum insufficient for his maintenance. Julius Cæsar gave Servilla, the mother of Brutus, a pearl of the value of £40,000. Cleopatra, at an entertainment, gave to Anthony, dissolved in vinegar, who swallowed it, a pearl worth £80,000. Claudius, the son of Esopus, the comedian, swallowed one worth £8000. One single dish cost Esopus £80,000. Caligula spent for one supper £80,000, and Heliogabalus £20,000. The usual cost of a repast for Lucullus was £20,000. Misalla gave £400,000 for the house of Anthony. The fish from Lucullus' fish-ponds were sold for £35,000. Scaurus' country-house was destroyed by fire, and his loss was estimated at £850,000. Otho, to finish a part of Nero's palace, spent £487,500.

Extraordinary manner of Manufacturing Cloth.—A gentleman in London has just obtained a patent for making the finest cloth for gentlemen's coats, &c., without spinning, weaving, or indeed without the aid of any machinery similar to those processes, and at a cost less than one fourth the present price. The most extraordinary circumstance in this contrivance is, that air is the only power used in the manufacture of the article. The ingenious inventor places in an air tight chamber a quantity of flocculent particles of wool, which by means of a species of winnowing wheel, are kept floating equally throughout the atmosphere contained therein; on one side of the chamber is a net-work of metal of the finest manufacture, which communicates with a chamber from which the air can be abstracted by means of an exhausting syringe, commonly called an air pump, and on the communication between the chambers being opened, the air rushes with extreme vehemence to supply the partial vacuum in the exhausted chamber, carrying the woolly floccula against the netting, and so interlacing the fibres, that a cloth of beautiful fabric and close texture is instantaneously made.

Embalming.—A Paris paper of the 21st ult. has this curious and valuable medical fact:—"The young boy found murdered in a field near Villette, not having been recognised, and the process of decomposition having commenced, the magistrates ordered it to be embalmed by M. Gannal's simple method of injection through the caretid arteries, so that this evidence of the crime may remain producible. This is the first operation of the kind performed by order of justice, and it was completed in a quarter of an hour."

Singular Scientific Error.—In the infancy of Rail-road speculation, the engineers resorted to a thousand laborious contrivances with a view of overcoming an obstacle which had no real existence. It was assumed that the adhesion of the smooth wheels of the carriage upon the equally smooth iron rail, must necessarily be so slight, that if it should be attempted to drag any considerable weight

the wheels would only be whirled round, while the carriage would not advance. A patent for an invention to remedy this fancied inconvenience was actually taken out by Mr. Blenkinsop, in 1811.

Manufactures in Egypt.—Among other instances of the improved state of manufactures in Egypt, it is said that there are now 30,000 linen looms, 7000 cotton looms, and 4,500 woollen looms in various establishments in that country. At the same time the corn and other vegetable products of Egypt are on the increase.

Conclusive Argument.—Soon after the Copernican System of Astronomy began to be generally understood, an old Connecticut farmer went to his parson with the following inquiry:—“Doctor T., do you believe in this new story they tell of the earth moving round the sun?” “Yes, certainly,” “Do you think it is according to Scripture? If it’s true, how could Joshua have commanded the sun to stand still?” “Umph!” quoth the doctor, no whit puzzled, “Joshua commanded the sun to stand still, did he?” “Yes.” “Well, it stood still, did it not?” “Yes.” “Very well.—Now did you ever hear, that he set it a-going again?”

Assam Tea.—A communication replete with interest, has been received from Mr. Bruce, superintendent of the government tea-grounds. From this, it appears that Upper Assam may be considered literally an entire tea-garden, and that the extension of the cultivation has scarcely any other limits than those arising from the deficiency of workmen. The tea plants double in size and luxuriance those of China; indeed, they are so vigorous, that the chief object, in the first instance, will be to check their exuberance. The great difficulty to be at present overcome, is the want of laborers. Mr. Bruce’s statements show that the profits will be very large, if a wholesale price of 2s. per lb. can be realized.

London paper.

The Royal Cheese.—The Pennard cheese was made on the morning of the 20th June last, with the milk of 750 cows, fifty dairy-maids officiating at the ceremony. The shape is an octagon, the lineal edge 14 inches, depth 22; measure, from angle to angle, 36 inches, comprising 20,820 cubic inches, weight 10 cwt. A powerful press was made for the occasion, capable of giving a pressure of 40 tons. The follower is formed of a block of mahogany five inches thick, with the Royal arms sunk in it, which appears in bass relief on the top of the cheese. To preserve it effectually from vermin, &c., a prism of beautiful wize-work surrounds it, covered with an octagonal pyramid of the same, surmounted by the Royal crown. On the Queen’s wedding day, a party from Ilminster was received by Messrs. Norris & Dunkerton, the projectors, and entertained in the most hospitable manner in the room where the cheese stands, when a song, written expressly for the occasion by Mr. T. Dibdin, and set to music by

Mr. T. Williams, was sung, to the great delight of a numerous company.

Horse Racing among the Cossacks.—The horse races among the Cossacks and other tribes in Asiatic Russia, which have been established by the Russian government, took place on the 30th of September, on the Steppes of Ouralsk, where more than 30,000 Cossacks, Tartars, Baskirs, Kajaks, Kirghis, and Turkomans were assembled. In the first match 15 horsemen entered the hippodrome, the circuit of which they made three times, the winning horse performing a distance of 18 wersts (nearly 12 miles) in 24 minutes. The prize gained by the Cossack who rode it was 6,000 rubles. After this match 60 horsemen started in a race; two came in at the same time—viz., the Sultan Ajsay Malon, who is a lieutenant-colonel in the Russian service, and a Cossack. A distance of 20 wersts (about 13 miles) was performed in 25 minutes. Each of these persons gained 2,500 rubles, and the 58 vanquished horses were divided between them.

Useful Mechanism.—Mrs. Atkinson, of Salem, and her sister, having invented a valuable little loom for the making of fringes, silk, worsted and thread scarfs, bags, purses, &c., by which it becomes an easy employment. The loom occupies but a little space, affording light and delicate work for parlor exercise, and profit to those who would engage in it for that purpose. The management of it is soon acquired, even by a child.

A Good Arbitrator.—Two men had a dispute which should repair a particular fence separating their fields, and through which the cattle found their way. After the usual preliminaries of demands, refusals, threats, and mutual recrimination, they resolved to try the glorious uncertainty of the law. They were persuaded by their friends to the more amicable mode of submitting the question to the final determination of a very worthy and intelligent neighbor, who was forthwith conducted to the scene of trouble. Here, after hearing the arguments of both parties, he told them that the subject demanded great deliberation; and, as it would take time to decide, he would just clap a few pieces of boards over the holes; and in ten minutes time, with his own hands, he effectually closed every gap. The parties silently retired, and the umpire has never been called upon to pronounce the final judgment in the case.—*Newburyport Herald.*

March of Gallantry West.—By a late act of the Legislature of Alabama, the personal attendance of females, as witnesses at Court in civil cases, is dispensed with. Their written depositions are substituted in all cases.

A Hint to Wives.—“If I am not home from the party to-night at ten o’clock,” said a husband to his better, and bigger half, “don’t wait for me.” “That I won’t,” said the lady significantly: “I won’t wait, but I’ll come for you.” He received at ten precisely.